Summary of Non-Halibut Catch from the Standardized Stock Assessment Survey Conducted by the International Pacific Halibut Commission in British Columbia from June 4 to July 7, 2007

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SUMMARY OF NON-HALIBUT CATCH FROM THE STANDARDIZED STOCK ASSESSMENT SURVEY CONDUCTED BY THE INTERNATIONAL PACIFIC HALIBUT COMMISSION IN BRITISH COLUMBIA FROM JUNE 4 TO JULY 7, 2007

by

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ABSTRACT

Obradovich, S.G., Yamanaka, K.L., Cooke, K., Lacko, L.C., and Dykstra, C. 2008. Summary of non-halibut catch from the Standardized Stock Assessment Survey conducted by the International Pacific Halibut Commission in British Columbia from June 4 to July 7, 2007. Can. Tech. Rep. Fish. Aquat. Sci. 2807: x + 83 p.

Since 2003, a third observer has been deployed on the International Pacific Halibut Commission's (IPHC) Standardized Stock Assessment (SSA) survey in British Columbia, IPHC regulatory area 2B. Similar to the previous surveys, this document summarizes the non-halibut catch during the 2007 survey and constructs a Long-Term Index (1995 - 2007) of relative abundance for four species of rockfish: quillback (*Sebastes maliger*), yelloweye (*S. ruberrimus*), redbanded (*S. babcocki*), and rougheye (*S. aleutianus*) from a spatially explicit subset of survey data. Negative growth rates are noted over the time period of the Long-Term Index; annual relative growth rates range from -7.0% for quillback rockfish to -8.6% for yelloweye rockfish and the accumulated relative change over the 1995 to 2007 series are -58.2% and -65.9%, respectively. In addition, all survey stations are used to construct a Short-Term Index (2003-2007) of relative abundance, for the same species, which is based on catch per 100 hooks. The Short-Term Index shows positive growth rates, between 2003 and 2007, for all these rockfish species, except rougheye.

RÉSUMÉ

Obradovich, S.G., Yamanaka, K.L., Cooke, K., Lacko, L.C., and Dykstra, C. 2008. Summary of non-halibut catch from the Standardized Stock Assessment Survey conducted by the International Pacific Halibut Commission in British Columbia from June 4 to July 7, 2007. Can. Tech. Rep. Fish. Aquat. Sci. 2807: x + 83 p.

Depuis 2003, un troisième technicien a été affecté à l'évaluation normalisée des stocks (ENS) de la Commission internationale du flétan du Pacifique (CIFP), dans la zone réglementée 2B de la CIFP, en Colombie-Britannique. Comme pour les relevés antérieurs, nous résumons les données de capture provenant de prises autres que le flétan lors du relevé de 2007, et présentons un indice à long terme (de 1995 à 2007) de l'abondance relative de quatre espèces de sébastes (le sébaste à dos épineux [*Sebastes maliger*], le sébaste aux yeux jaunes [*Sebastes ruberrimus*], le sébaste à bandes rouges [*Sebastes babcocki*] et le sébaste à œil épineux [*Sebastes aleutianus*]) à partir d'un sous-ensemble de données de relevés spatialement explicites. Des taux de croissance négatifs ont été observés pendant la période couverte par l'indice à long terme. Les taux annuels de croissance relative se situent dans la fourchette de –7,0 % pour le sébaste à dos épineux à –8,6 % pour le sébaste aux yeux jaunes, et les variations relatives cumulatives pour la série de 1995 à 2007 sont respectivement de –58,2 % et de –65,9 % chez ces deux espèces. De plus, tous les sites d'étude servent à l'élaboration d'un indice à court terme (de 2003 à 2007) de l'abondance relative de ces mêmes espèces, lequel est fondé sur le nombre de captures pour 100 hameçons mouillés. L'indice à court terme indique des taux de croissance positifs entre 2003 et 2007 pour toutes ces espèces de sébastes, sauf pour le sébaste à œil épineux.

1.0 INTRODUCTION

The International Pacific Halibut Commission's (IPHC) Standardized Stock Assessment (SSA) survey is a fixed-station longline survey that extends from southern Oregon to the Bering Sea. This survey is directed to index halibut abundance and provide accompanying biological samples to assess the Pacific halibut stock. The British Columbia (regulatory area 2B) portion of this survey has been conducted annually in various configurations since 1963 (www.iphc.washington.edu). Since 2003, the IPHC has provided the opportunity to deploy an additional technician during the survey to identify the catch to species on a hook-by-hook basis and to collect biological samples from rockfish (Yamanaka *et al.* 2004, 2007, and 2008, Lochead *et al.* 2006). Between 2003 and 2006, a contractor was hired to conduct this onboard sampling, but in 2007 the IPHC was contracted by DFO to provide the third technician for this survey. In addition to halibut, many other groundfish species are commonly caught on the survey including spiny dogfish (*Squalus acanthias*), sablefish (*Anoplopoma fimbria*), and rockfishes (*Sebastes spp.*).

Similar to past reports, this report summarizes the catch and effort by location and the biological data for the rockfish species caught incidentally during the survey. Selected stations were used to construct catch rate indices for yelloweye (*Sebastes ruberrimus*), quillback (*S. maliger*), redbanded (*S. babcocki*), and rougheye (*S. aleutianus*) rockfishes using partial hook-by-hook data between 1996 and 2002 and complete species enumerations in 1995 and 2003 to 2007. In this year's summary, new catch rate indices are constructed between 2003 and 2007, using all stations in the survey. Catch and effort data collected from the IPHC SSA survey in British Columbia provide informative coastwide relative abundance indices for many groundfish species.

2.0 METHODS

2.1 IPHC Chartered Vessels and Survey Locations

The *F/V Pender Isle* and *F/V Proud Venture* were chartered in 2007 to conduct the Canadian portion (Area 2B) of the IPHC SSA surveys. The *F/V Pender Isle* (CFV/VRN 27282) is a 70-foot steel vessel, skippered by Garth Roberts. The *F/V Proud Venture* (CFV/VRN 23197) is a 70-foot steel vessel, skippered by Charles Harper.

The Canadian portion of the IPHC survey consists of 170 fixed (non-random) survey stations and is divided into four charter regions: 'Vancouver', 'Goose Island', 'St. James', and 'Charlotte'. The left panel of Figure 1 shows the location of the IPHC fixed survey stations and identifies the chartered vessel that fished each station, while the right panel of Figure 1 shows the IPHC survey stations relative to the Pacific States Marine Fisheries Commission (PSMFC) areas, used in the Fisheries and Oceans Canada Groundfish Management Plan (2006). In 2006, the inshore rockfish management areas

changed to conform to other groundfish fishing sectors for ease of management within the groundfish licence integration initiative.

2.2 Fishing Gear and Operations

Standardized "conventional" (fixed) longline fishing gear was deployed during the survey and standardized fishing operations followed, as required in the IPHC Charter Bid Specifications (www.iphc.washington.edu). Fishing gear specifications and fishing operations are detailed in Yamanaka *et al.* (2004), except only five skates per string were deployed in 2007. The duration of the fishing event or 'soak time' of the set is calculated as the time elapsed between the last anchor set over the stern and the first anchor hauled aboard (Yamanaka et al. 2004). Average bottom depths are calculated as the average of the minimum and maximum bottom depths of the set.

2.3 Data Collection

The hook-by-hook observations and biological sampling were conducted as described for the 2003 survey (Yamanaka *et al.* 2004). Appendix A details the biological sampling protocol, which was based on previous protocols but complied by the IPHC. In 2007, all rockfish length data was collected on dressed fish (gilled and gutted, gonads intact). For quillback, redbanded, and yelloweye rockfishes, conversion factors were calculated based on linear regressions fit to all round and dressed fork length data collected in 2004, 2005, and 2006. Similar methods were applied to data for rougheye rockfish and shortspine thornyhead (*Sebastolobus alascanus*) in Lochead *et al.* (2006).

2.4 Instantaneous Total Mortality Rate

The instantaneous total mortality rate (Z) for yelloweye rockfish is estimated using age-based catch curves based on data collected between 2003 and 2006. Expressed as the change in population numbers (N) during time period t, the instantaneous total mortality rate can be calculated as the slope of the linear regression, when logarithmic values of the catch (C_a) at each age (a) are plotted.

$$N_t / N_{t-1} = -Zt \tag{1}$$

$$\log(C_a) = \log(C_{a-1}) - Za \tag{2}$$

This assumes that catch-at-age is directly proportional to abundance at age (Hilborn and Walters 1992) and that the population experiences constant recruitment, constant mortality that is equal across all age classes (Ricker 1975), and equal vulnerability of these age classes to the fishery (Hilborn and Walters 1992). As full recruitment to the fishery appears to occur at 23 years of age, only ages greater than 23 are included in the calculation of the instantaneous total mortality rate.

2.5 Catch Rate

Catch rate (U) is here defined as the total number of fish (N) divided by the number of normal condition hooks (H) returned from the set, multiplied by 100. The hook count excludes all missing, bent, and broken hooks. Mean species catch rates ($\overline{U}_s$) are calculated as the sum of the catch rates per set (U_{is}) divided by the number of sets (n), where s denotes the species, and i denotes the set.

$$U_{is} = \frac{N_{is}}{H_i} * 100 \qquad \overline{U}_s = \frac{1}{n}\sum_{i=1}^{n}\left(\frac{N_{is}}{H_i} * 100\right) \qquad (3, 4)$$

In previous years (e.g. Yamanaka *et al.* 2008), catch rate was calculated as the catch per intact skate returned from the set, which did not account for differences between the skates, such as missing, bent, and broken hooks.

2.6 Relative Abundance Indices

Two relative abundance indices (a long-term and a short-term) are constructed from the IPHC SSA survey data, which spans 1995-2007. Species composition data, compiled from the identification of the total catch, is available for 1995 and after 2003, while an estimated species composition is used for 1996 to 2002 (historic IPHC data). For these years with partial species composition data, the catch from the first 20 hooks of each skate in the set was expanded to estimate the total rockfish species composition for the set. Although the entire catch was identified to species during the 1995 survey, 2.78% of the rockfish were recorded as "unidentified rockfish", thus, the catch rate index may be slightly underestimated for these unidentified species.

Both of the relative abundance indices are constructed from $\log_2$ transformed non-zero catch rate data. Examining the slope of the regression line running through the median values gives an annual logarithmic growth rate (b), where a slope of 1 and -1 reflect a doubling and halving, respectively, of the catch rate (Schnute *et al.* 2004). Annual relative growth rate (r) is calculated from:

$$r = 2^b - 1 \qquad (5)$$

where b is the annual logarithmic growth rate. The accumulated relative change (R) is similarly calculated from:

$$R_l = 2^{b(l-1)} - 1 \qquad (6)$$

where b is the annual logarithmic growth rate and l is the number of observations over the time series (Schnute *et al.* 2004).

2.6.1. Long-Term Index (1995-2007)

The 2007 catch data is added to the Long-Term Index of relative abundance constructed from the IPHC SSA surveys for the years 1995 through 2006 (Yamanaka *et. al.* 2008).

The spatial distribution of the survey stations has changed over time. In 1995 through to 1997, survey stations were grouped in triangular clusters, while in 1998 to the present, survey stations are positioned equidistant from one another on a 10 nm square grid (Figure 2). Beginning in 1998, regulatory area 2B was divided into four survey regions: 'Vancouver', 'Goose Island', 'St. James', and 'Charlotte'. Surveys were conducted annually in all regions with the exception of 'Vancouver', which was surveyed in 1999 and in years since 2001. The Long-Term Index from 1995 to 2007 includes only those survey stations that:

1. overlapped with the present grid stations by a radius less than 10 kilometres,
2. were surveyed in all years, and
3. were labelled as having an effective set by the IPHC.

The stations used in the Long-Term Index time series are shown in Figure 2 (right panel).

As in past years, station catch rates (C) for this Long-Term Index of relative abundance are calculated as the total number of fish (N) divided by the number of effective skates (E) in the set. IPHC defines an effective skate as a skate of 100 circle hooks with 18-foot spacing. Using E standardizes survey data in years when the number of hooks, hook spacing, or hook type varied. Mean species catch rates ($\overline{C}_s$) for each year are estimated from all overlapping stations in the time series for that year (n).

$$C_{is} = \frac{N_{is}}{E_i} \qquad \overline{C}_s = \frac{1}{n}\sum_{i=1}^{n}\frac{N_{is}}{E_i} \qquad (7, 8)$$

From IPHC:

$$E = 1.52\,S\left(1 - e^{-0.006D}\right)\frac{H}{100}A. \qquad (9)$$

where E =number of effective skates;
S = number of skates hauled;
D = hook spacing in feet;
H = number of hooks;
A = adjustment value for differences among hook types.

If the hook spacing is ≤ 4 feet skates are considered ineffective (effective skates = 0). In the years 1996 to 1999, there were fewer "effective skates" than "skates hauled", as skates with less than 100 hooks per skate were deployed in those years. Since 2000, there is little to no difference between effective skate and skates hauled.

2.6.2. Short-Term Index (2003-2007)

The Short-Term Index of relative abundance is created using catch rate data from all stations fished during 2003 to 2007. This period, following deployment of the third observer, had complete hook by hook species identification and consistent survey design, gear specifications, and fishing operations. Catch rate is calculated per 100 hooks (equations 3 and 4), for all stations in the survey. Hook counts exclude all missing, bent or broken hooks. The Short-Term Index benefits from the inclusion of data from all stations, accounting for hook problems, and its conceptual simplicity, and with five years of data this index can be expected to capture trends in relative abundance.

3.0 RESULTS AND DISCUSSION

3.1 Survey Locations

The *F/V Pender Isle* fished the 'Vancouver' and 'Goose Island' regions between June 4 and July 2, 2007 and the *F/V Proud Venture* fished the 'St. James' and 'Charlotte' regions between June 5 and July 7, 2007 (Figure 1 and Appendix B).

3.2 Catch Summary

The DFO GFBio database archives data from the 2007 IPHC SSA survey with TRIP_IDs 64846 (*F/V Pender Isle*) and 64847 (*F/V Proud Venture*).

Species catch, in numbers, is shown in Table 1. Spiny dogfish (*Squalus acanthias*), Pacific halibut (*Hippoglossus stenolepis*) and sablefish (*Anoplopoma fimbria*) are the three most commonly caught species on the survey, accounting for 81% (in numbers) of all species caught. A total of 29.3 tonnes (t) of halibut and 6.4 t of rockfish were landed during the survey (Table 2).

3.2.1. Hook by Hook

Fifty-six percent of the hooks deployed on the survey returned empty and 28% of the hooks were occupied by a fish or an invertebrate (Table 3). Less than one percent of the hooks were missing, bent or broke and one percent of the lines were snarled. In 2007, this amounted to 239 snarls involving 1030 hooks, which was less than in previous years (Table 4). Issues relating to snarls are not addressed in the catch rates or indices of this report.

3.2.2. Biological Sampling

Biological samples were taken for 15 species of rockfish, including 712, 682, 119, and 112 otolith pairs from redbanded, yelloweye, quillback and rougheye rockfishes, respectively (Table 5). Although fewer rockfish otolith pairs were collected in 2007 than

in previous years, the proportion of the catch sampled was higher. Rockfish length (dressed) summaries by species, for all regions combined, and by survey region, are shown in Table 6 through to Table 10. Dressed lengths are greater than round lengths for quillback, redbanded, and yelloweye rockfishes. The regression equations are presented in Figure 3. Rockfish length (dressed) frequencies for quillback, redbanded, and yelloweye rockfishes are shown in Figure 4. Rockfish sexual maturity summaries are shown in Table 11. The majority of the rockfish caught during the survey were sexually mature. The sex ratio for yelloweye rockfish skewed towards male, with females making up only 37% of the sampled catch. The higher proportion of males is consistent with previous years, when female yelloweye rockfish were approximately 39-44% of the catch. Due to the time required for age determination these data are not presented for 2007.

3.3 Instantaneous Total Mortality Rate

Estimated mortality rates for yelloweye rockfish range from 0.033 (2003 data) to 0.048 (2004 data). The estimate increased between 2003 and 2004, but has decreased consistently since 2004 (Figure 5). Concavity/convexity in the catch curve (Figure 5) indicates strong year classes (unequal recruitment) or a potential inequality in the vulnerability of age groups to the gear/survey, both which violate the assumptions of the model. In the case of a long-lived species like yelloweye rockfish, very few individuals survive into the maximum age range. This creates an extremely long tail in the age histogram (Figure 5) and further confounds the use of Z for this species.

3.4 Catch Rates

Overall mean catch rates were highest for redbanded and yelloweye rockfishes at 0.89 fish per 100 hooks and 0.84 fish per 100 hooks, respectively (Table 12). The highest mean catch rate for redbanded rockfish occurred in area 5C/D at 1.42 fish per 100 hooks, while for yelloweye rockfish the highest rates occurred in areas 5B and 5E at 1.43 fish per 100 hooks and 1.44 fish per 100 hooks, respectively (Table 13 to Table 16).

The spatial distribution of rockfish catch rates (numbers per 100 hooks), by species, are shown in Figure 6. Bocaccio, canary, quillback, redbanded, rougheye, shortraker, silvergray, and yelloweye rockfishes were caught throughout the entire survey area, while yellowmouth rockfish was caught in all areas except the northern 5C/D. China, darkblotched, greenstriped, rosethorn, tiger, and yellowtail rockfishes were caught only sporadically and catches were small (Figure 6).

Catch rates for quillback, yelloweye, redbanded, and rougheye rockfishes, during 2003 to 2007, appear to be independent of set duration, with depredation and fish drop-off likely increasing with increasing set duration (Figure 7). Set durations and depths fished in the survey, between 2003 and 2007, are similar (Figure 7 and depth range in Figure 8). Thus, variability in the relative abundance indices is not due to changes in the depths covered by the survey.

The depths fished by the IPHC SSA survey, between 2003 and 2007, which are as shallow as 29.5 m and as deep as 465 m, are shown in the upper left hand panel of Figure 8. To compare this distribution with the depths of all survey sets in GFBio, the presence of quillback, yelloweye, redbanded, and rougheye rockfishes are shown in the remaining panels of Figure 8. The depth distribution of the IPHC survey, compared with those of the rockfishes, indicates that yelloweye and redbanded rockfishes are adequately surveyed, while the depths are somewhat shallow for redbanded rockfish and a little deep for quillback rockfish. The majority of GFBio research sets used trawl gear, which underrepresents quillback and yelloweye rockfishes.

3.5 Relative abundance indices

Two different relative abundance indices were constructed for each of four commonly caught rockfish species: quillback, yelloweye, redbanded, and rougheye. The Long-Term Index, based on effective skates as unit effort, uses catch rate data from overlapping survey stations that were fished in all years between 1995 and 2007 (Appendix C). A low of 69 stations in 1998 to a high of 92 stations in 1997 were used in this analysis (Table 17). In 2007, a total of 75 of the 170 stations were used in this analysis. The Short-Term Index of relative abundance, based on 100 hooks as unit effort, uses all 170 stations fished each year between 2003 and 2007.

A high proportion of the overlapping stations used in the Long-Term Index in this halibut-directed survey did not yield a quillback, yelloweye, redbanded or rougheye rockfish catch. Zero catches ranged from a low of 44% of stations for redbanded rockfish in 1996 to a high of 97% of stations for quillback rockfish in 2001 (Table 17). Similar proportions of stations with zero catch were seen in the Short-Term Index, from a low of 55% for redbanded rockfish in 2005 to a high of 89% for rougheye rockfish in 2006/2007 (Table 18).

The non-zero catch rates were $\log_2$ transformed and are shown in Table 17 and Table 18. For these commonly caught rockfish, boxplots of the non-zero $\log_2$ transformed catch rate data for the 1995 to 2007 time series are shown in the upper panels of Figure 9 to Figure 12. The lower panels of the same figures show a plot of the median non-zero $\log_2$ transformed catch rates with the regression line for both the Long-Term and Short-Term indices.

For the Long-Term Index, 1995 to 2007 time series (with effective skate as the unit effort), the slope of the regression line through the annual median values shows a declining trend for these rockfishes. Annual relative growth rates are -7.0%, -8.6%, -7.9%, and -8.4%, for quillback, yelloweye, redbanded and rougheye rockfishes, respectively. The accumulated relative change over the time series of surveys from 1995 to 2007 is -58.2%, -65.9%, -62.8%, and -65.0% for quillback, yelloweye, redbanded and rougheye rockfishes, respectively (Figure 9 to Figure 12).

For the Short-Term Index, 2003 to 2007 time series (with 100 hooks as the unit effort), positive slopes for the regression line are seen for three species. Annual relative growth

rates are 28.7%, 7.6%, 1.5%, and -13.5% for quillback, yelloweye, redbanded and rougheye rockfishes, respectively. The accumulated relative change over the time series of surveys from 2003 to 2007 is 174.3%, 33.9%, 6.3%, and -44.0% for quillback, yelloweye, redbanded and rougheye rockfishes, respectively (Figure 9 to Figure 12).

While the Long-Term Index (1995 - 2007) shows a decline in the relative abundance of quillback, yelloweye, redbanded and rougheye rockfishes over 13 years, the Short-Term Index (2003 -2007) indicates the relative abundance of quillback, yelloweye, and redbanded rockfishes increasing over the last 5 years. Given that the Short-Term Index includes all survey stations, and accounts for hook problems, this positive trend could indicate the start of a recovery for these populations since 2003. Rougheye rockfish do not show this up turn in recent years but is perhaps not as well indexed as these other species in this survey.

The IPHC SSA halibut survey provides valuable, fishery independent relative abundance indices for commonly caught rockfish. There is no other coastwide, long-term abundance index available for these rockfishes. This survey may also provide similar indices for other commonly caught species, such as dogfish and sablefish.

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Table 1. Summary of species catch in numbers (descending) for the BC coast, each PSMFC area grouping of capture, and as a percent of total marine fish species.

Common Name	Taxonomic Name	Total	3C/D, 5A	5B	5C/D	5E	% Total
SPINY DOGFISH	SQUALUS ACANTHIAS	12952	5422	3342	3914	274	53.07
PACIFIC HALIBUT	HIPPOGLOSSUS STENOLEPIS	4912	1548	1276	1675	413	20.13
SABLEFISH	ANOPLOPOMA FIMBRIA	2020	340	722	710	248	8.28
REDBANDED ROCKFISH	SEBASTES BABCOCKI	739	86	197	404	52	3.03
ARROWTOOTH FLOUNDER	ATHERESTHES STOMIAS	724	156	145	411	12	2.97
YELLOWEYE ROCKFISH	SEBASTES RUBERRIMUS	693	185	320	118	70	2.84
LONGNOSE SKATE	RAJA RHINA	645	159	213	246	27	2.64
SUNFLOWER STARFISH	PYCNOPODIA HELIANTHOIDES	414	179	53	170	12	-
LINGCOD	OPHIODON ELONGATUS	335	184	45	70	36	1.37
QUILLBACK ROCKFISH	SEBASTES MALIGER	122	42	12	41	27	0.50
ROUGHEYE ROCKFISH	SEBASTES ALEUTIANUS	121	8	12	31	70	0.50
STARFISH	ASTEROIDEA	103	56	22	18	7	-
BIG SKATE	RAJA BINOCULATA	102	44	20	37	1	0.42
SILVERGRAY ROCKFISH	SEBASTES BREVISPINIS	65	16	14	10	25	0.27
PACIFIC COD	GADUS MACROCEPHALUS	62	3	5	45	9	0.25
SHORTSPINE THORNYHEAD	SEBASTOLOBUS ALASCANUS	59	2	10	33	14	0.24
SHORTRAKER ROCKFISH	SEBASTES BOREALIS	44	5	6	9	24	0.18
ANEMONE	ACTINIARIA	38	4	4	8	22	-
SPOTTED RATFISH	HYDROLAGUS COLLIEI	32	11	2	16	3	0.13
CANARY ROCKFISH	SEBASTES PINNIGER	21	6	4	5	6	0.09
BOCACCIO	SEBASTES PAUCISPINIS	16	3	7	2	4	0.07
ALEUTIAN SKATE	BATHYRAJA ALEUTICA	16	1	-	12	3	0.07
OCTOPUS	OCTOPODA	15	4	1	10	-	-
THORNYHEADS	SEBASTOLOBINAE	15	3	12	-	-	0.06
PETRALE SOLE	EOPSETTA JORDANI	14	5	-	8	1	0.06
INANIMATE OBJECT(S)	INANIMATE OBJECT(S)	12	1	3	7	1	-
YELLOWMOUTH ROCKFISH	SEBASTES REEDI	9	1	6	-	2	0.04
PACIFIC SLEEPER SHARK	SOMNIOSUS PACIFICUS	9	-	7	2	-	0.04
PARAGORGIA PACIFICA	PARAGORGIA PACIFICA	9	-	-	-	9	-
CHINA ROCKFISH	SEBASTES NEBULOSUS	8	7	-	-	1	0.03
ANTHOZOA	ANTHOZOA	7	2	4	1	-	-
SPONGES	PORIFERA	7	-	7	-	-	-
FLATHEAD SOLE	HIPPOGLOSSOIDES ELASSODON	6	6	-	-	-	0.02
GASTROPODS	GASTROPODA	6	-	1	5	-	-
ROUGHTAIL SKATE	BATHYRAJA TRACHURA	6	-	-	5	1	0.02
SEA URCHINS	ECHINACEA	5	1	3	-	1	-
SKATES	RAJIDAE	4	-	1	3	-	0.02
GREENSTRIPED ROCKFISH	SEBASTES ELONGATUS	3	2	1	-	-	0.01
BLUE SHARK	PRIONACE GLAUCA	3	1	-	2	-	0.01
ROCKFISHES	SEBASTINAE	3	-	1	-	2	0.01
SCALLOP	PECTINIDAE	2	2	-	-	-	-
SOUTHERN ROCK SOLE	LEPIDOPSETTA BILINEATA	2	2	-	-	-	0.01
RADIATA	RADIATA	2	2	-	-	-	-
WOLF EEL	ANARRHICHTHYS OCELLATUS	2	1	1	-	-	0.01
ROSETHORN ROCKFISH	SEBASTES HELVOMACULATUS	2	1	-	1	-	0.01
SOUPFIN SHARK	GALEORHINUS ZYOPTERUS	2	-	2	-	-	0.01
DARKBLOTCHED ROCKFISH	SEBASTES CRAMERI	2	-	1	1	-	0.01
YELLOWTAIL ROCKFISH	SEBASTES FLAVIDUS	2	-	-	2	-	0.01
SEA WHIP	OSTEOCELLA SEPTENTRIONALIS	2	-	-	1	1	-
GREENLINGS	HEXAGRAMMIDAE	2	-	-	-	2	0.01
PACIFIC SANDDAB	CITHARICHTHYS SORDIDUS	1	1	-	-	-	0.00
UNIDENTIFIED SHARK	UNIDENTIFIED SHARK	1	1	-	-	-	0.00
BLACK-FOOTED ALBATROSS	DIOMEDEA NIGRIPES	1	-	1	-	-	-
DOVER SOLE	MICROSTOMUS PACIFICUS	1	-	1	-	-	0.00
SEA PENS	PENNATULACEA	1	-	1	-	-	-
SANDPAPER SKATE	BATHYRAJA INTERRUPTA	1	-	1	-	-	0.00
SALMONIDS	SALMONIDAE	1	-	1	-	-	0.00
SIXGILL SHARK	HEXANCHUS GRISEUS	1	-	-	1	-	0.00
BRYOZOA	BRYOZOA	1	-	-	1	-	-
SALMON SHARK	LAMNA DITROPIS	1	-	-	1	-	0.00
TIGER ROCKFISH	SEBASTES NIGROCINCTUS	1	-	-	1	-	0.00
UNIDENTIFIED ORGANIC MATTER	UNIDENTIFIED ORGANIC MATTER	1	-	-	1	-	-
BENT-NOSE MACOMA	MACOMA NASUTA	1	-	-	-	1	-
Marine Fish Only		23782	8252	6387	7816	1327	97.44
Total Catch		24409	8503	6487	8038	1381	100.00

NB: This table includes 68 second species caught on the same hook, and thus reports higher catch than Table 3.

Table 2. Total landed weight (kg) by species for the BC stations in the 2007 IPHC survey. Weights are for fresh, round fish, converted automatically and provided by the Fisheries Operating System (FOS).

Species	Kilograms
Pacific halibut	29330
Yelloweye rockfish	3310
Redbanded rockfish	2103
Rougheye rockfish	296
Silvergray rockfish	198
Quillback rockfish	191
Shortraker rockfish	188
Bocaccio	59
Canary rockfish	53
China rockfish	6
Yellowmouth rockfish	6
Darkblotched rockfish	1
Greenstriped rockfish	1
Tiger rockfish	1
Rosethorn rockfish	1
ALL ROCKFISH	**6412**
Shortspine thornyhead	139
Pacific cod	213

Table 3. Summary of hook observations by description, DFO GFBio database code, number of hooks retrieved, and percent of total hooks.

HOOK YIELD

Description	GFBio Code	# hooks	% of total
Unknown	0	68	0.08
Empty hook	1	46777	55.53
Bait on hook	2	6839	8.12
Animal or inanimate object on hook	3	23972	28.46
Species head on hook	4	275	0.33
Species dropped off hook	5	94	0.11
Bait skin on hook	6	6206	7.37
Hook not observed	7	0	0.00
Total		**84231**	**100.00**

HOOK CONDITION

Description	GFBio Code	# hooks	% of total
Unknown	0	68	0.08
Broken at rail	4	0	0.00
Hook condition not observed	5	0	0.00
Normal	6	83637	99.29
Missing, bent, or broken hook	7	526	0.62
Total		**84231**	**100.00**

LINE CONDITION

Description	GFBio Code	# hooks	% of total
Normal	1	83177	98.75
Snarl in line	2	1030	1.22
Line not observed	3	0	0.00
Gear parted	4	24	0.03
Total		**84231**	**100.00**

NB: Table counts do not include second animals/inanimate objects caught on the same hook.

Table 4. Summary of line snarls, including the total number of hooks involved in snarls each year, for 2003 to 2007 data.

Year	Total Number of Snarls	Number of Hooks per Snarl					Total Number of Hooks
		Average	Minimum	Maximum	Standard Deviation	Standard Error	
2003	294	1.44	1	15	1.62	0.09	423
2004	530	3.23	1	57	4.37	0.19	1711
2005	423	3.05	1	111	6.12	0.30	1291
2006	259	4.40	1	72	6.88	0.43	1139
2007	239	4.31	1	66	6.58	0.43	1030

Table 5. Number of specimens, by species, measured for length, examined for gender and maturity state, and with otoliths removed for ageing.

Rockfish Species	Lengths	Sex	Maturities	Otoliths
Redbanded	712	683	682	712
Yelloweye	682	658	652	682
Quillback	119	115	115	119
Rougheye	112	111	110	112
Silvergray	60	57	57	60
Shortraker	44	43	43	44
Canary	15	15	15	15
Bocaccio	13	13	13	13
Yellowmouth	9	8	8	9
China	8	8	8	8
Darkblotched	2	2	2	2
Greenstriped	2	2	2	2
Yellowtail	1	1	1	1
Rosethorn	1	1	1	1
Tiger	1	1	1	1
All rockfish	**1781**	**1718**	**1710**	**1781**

Table 6. Summary of dressed rockfish fork length (cm) for entire BC coast (IPHC area 2B).

All Areas	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	71	49	35	29	32	41	51
Standard Error	1.17	1.34	0.73	10.50	2.00	0.28	0.20
Median	70	49	36	29	32	41	51
Mode	71	49	35	-	-	38	50
Standard Deviation	4.23	5.18	2.07	14.85	2.83	3.07	5.29
Sample Variance	17.86	26.83	4.27	220.50	8.00	9.42	27.95
Range	15	24	7	21	4	14	32
Minimum	67	35	31	18	30	33	34
Maximum	82	59	38	39	34	47	66
Count	13	15	8	2	2	119	712

All Areas	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	31	51	63	54	39	56	46	59
Standard Error	-	0.49	1.86	0.50	-	0.23	0.69	-
Median	31	51	64	53	39	55	47	59
Mode	-	52	68	52	-	55	47	-
Standard Deviation	-	5.22	12.31	3.86	-	5.93	2.06	-
Sample Variance	-	27.21	151.66	14.90	-	35.20	4.25	-
Range	0	33	51	20	0	49	6	0
Minimum	31	41	40	42	39	27	43	59
Maximum	31	74	91	62	39	76	49	59
Count	1	112	44	60	1	682	9	1

Table 10. Summary of dressed rockfish fork length (cm) for the PSMFC area 5E.

5E	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	73	48	35	-	-	38	48
Standard Error	3.34	1.33	0.00	-	-	0.40	0.71
Median	72	48	35	-	-	38	48
Mode	-	-	-	-	-	38	50
Standard Deviation	6.68	2.97	-	-	-	2.08	4.97
Sample Variance	44.67	8.80	-	-	-	4.33	24.65
Range	15	8	0	-	-	8	20
Minimum	67	45	35	-	-	34	39
Maximum	82	53	35	-	-	42	59
Count	4	5	1	-	-	27	49

5E	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	-	51	64	54	-	57	48	-
Standard Error	-	0.62	2.52	0.92	-	0.94	1.00	-
Median	-	51	69	53	-	57	48	-
Mode	-	51	70	52	-	56	-	-
Standard Deviation	-	5.07	12.33	4.43	-	7.91	1.41	-
Sample Variance	-	25.66	152.00	19.60	-	62.51	2.00	-
Range	-	22	40	20	-	36	2	-
Minimum	-	41	44	42	-	35	47	-
Maximum	-	63	84	62	-	71	49	-
Count	-	66	24	23	-	71	2	-

Table 11. Sexual maturity, assessed visually, for male and female rockfish species showing the number (proportion) of fish in each maturity stage and the total number of fish sampled.

MALE	Number (Proportion) of Individuals in Each Maturity Stage							Total
ROCKFISH	Immature	Maturing	Developing	Developed	Running	Spent	Resting	N
Bocaccio	0	0	4 (0.444)	5 (0.556)	0	0	0	9
Canary	0	0	2 (0.333)	3 (0.500)	0	1 (0.167)	0	6
China	0	1 (0.333)	1 (0.333)	0	0	1 (0.333)	0	3
Darkblotched	0	0	1 (1.000)	0	0	0	0	1
Greenstriped	0	0	0	0	0	0	0	0
Quillback	0	3 (0.050)	27 (0.450)	0	0	15 (0.250)	15 (0.250)	60
Redbanded	0	6 (0.020)	205 (0.674)	63 (0.207)	0	20 (0.066)	10 (0.033)	304
Rosethorn	0	0	0	0	0	0	0	0
Rougheye	2 (0.032)	1 (0.016)	28 (0.444)	29 (0.460)	0	0	3 (0.048)	63
Shortraker	0	2 (0.111)	7 (0.389)	7 (0.389)	0	2 (0.111)	0	18
Silvergray	0	0	28 (0.700)	0	0	6 (0.150)	6 (0.150)	40
Tiger	0	0	1 (1.000)	0	0	0	0	1
Yelloweye	6 (0.015)	34 (0.083)	190 (0.461)	5 (0.012)	0	164 (0.398)	13 (0.032)	412
Yellowmouth	0	0	5 (0.714)	1 (0.143)	0	0	1 (0.143)	7
Yellowtail	0	0	0	0	0	0	0	0
Total Number	8 (0.009)	47 (0.051)	499 (0.540)	113 (0.122)	0	209 (0.226)	48 (0.052)	924

FEMALE	Number (Proportion) of Individuals in Each Maturity Stage							Total
ROCKFISH	Immature	Maturing	Mature	Fertilized	Larvae	Spent	Resting	N
Bocaccio	0	0	0	0	0	3 (0.750)	1 (0.250)	4
Canary	0	3 (0.333)	6 (0.667)	0	0	0	0	9
China	0	0	2 (0.400)	0	0	1 (0.200)	2 (0.400)	5
Darkblotched	1 (1.000)	0	0	0	0	0	0	1
Greenstriped	0	1 (0.500)	0	1 (0.500)	0	0	0	2
Quillback	1 (0.018)	3 (0.056)	11 (0.200)	0	1 (0.018)	19 (0.345)	20 (0.364)	55
Redbanded	1 (0.003)	12 (0.032)	17 (0.045)	6 (0.016)	7 (0.019)	237 (0.627)	98 (0.259)	378
Rosethorn	0	0	0	1 (1.000)	0	0	0	1
Rougheye	0	9 (0.191)	3 (0.064)	0	0	18 (0.383)	17 (0.362)	47
Shortraker	0	3 (0.120)	1 (0.040)	0	0	10 (0.400)	11 (0.440)	25
Silvergray	0	3 (0.176)	3 (0.176)	2 (0.118)	3 (0.176)	4 (0.236)	2 (0.118)	17
Tiger	0	0	0	0	0	0	0	0
Yelloweye	0	24 (0.100)	30 (0.125)	19 (0.079)	30 (0.125)	100 (0.417)	37 (0.154)	240
Yellowmouth	0	0	0	0	0	0	1 (1.000)	1
Yellowtail	0	0	0	0	0	0	1 (1.000)	1
Total Number	3 (0.004)	58 (0.074)	73 (0.093)	29 (0.037)	41 (0.052)	392 (0.499)	190 (0.242)	786

Table 7. Summary of dressed rockfish fork length (cm) for the PSMFC area grouping 3C/D, 5A.

3C/D, 5A	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	71	35	35	-	30	41	50
Standard Error	0.00	0.00	0.84	-	0.00	0.43	0.56
Median	71	35	36	-	30	42	49
Mode	-	-	35	-	-	42	46
Standard Deviation	-	-	2.23	-	-	2.80	5.10
Sample Variance	-	-	4.95	-	-	7.85	26.03
Range	0	0	7	-	0	11	22
Minimum	71	35	31	-	30	36	40
Maximum	71	35	38	-	30	47	62
Count	1	1	7	-	1	42	84

3C/D, 5A	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	-	48	68	54	-	55	49	-
Standard Error	-	1.13	2.66	0.99	-	0.43	0.00	-
Median	-	47	68	53	-	55	49	-
Mode	-	46	-	53	-	55	-	-
Standard Deviation	-	2.76	5.94	3.56	-	5.72	-	-
Sample Variance	-	7.60	35.30	12.64	-	32.68	-	-
Range	-	7	15	13	-	44	0	-
Minimum	-	46	62	49	-	27	49	-
Maximum	-	53	77	62	-	71	49	-
Count	-	6	5	13	-	180	1	-

Table 8. Summary of dressed rockfish fork length (cm) for the PSMFC area 5B.

5B	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	71	52	-	39	34	41	51
Standard Error	1.35	2.81	-	0.00	0.00	0.82	0.42
Median	71	51	-	39	34	41	51
Mode	71	-	-	-	-	41	52
Standard Deviation	3.31	5.62	-	-	-	2.83	5.91
Sample Variance	10.97	31.58	-	-	-	8.00	34.97
Range	9	13	-	0	0	9	32
Minimum	68	46	-	39	34	37	34
Maximum	77	59	-	39	34	46	66
Count	6	4	-	1	1	12	195

5B	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	-	49	54	54	-	55	45	-
Standard Error	-	1.27	7.17	0.82	-	0.31	0.67	-
Median	-	47	52	52	-	55	46	-
Mode	-	47	-	52	-	53	47	-
Standard Deviation	-	4.41	16.04	3.08	-	5.56	1.63	-
Sample Variance	-	19.48	257.20	9.46	-	30.97	2.67	-
Range	-	14	40	10	-	34	4	-
Minimum	-	41	40	50	-	35	43	-
Maximum	-	55	80	60	-	69	47	-
Count	-	12	5	14	-	315	6	-

Table 9. Summary of dressed rockfish fork length (cm) for the PSMFC area grouping 5C/D.

5C/D	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	69	49	-	18	-	42	52
Standard Error	1.00	1.00	-	0.00	-	0.53	0.25
Median	69	49	-	18	-	42	52
Mode	-	-	-	-	-	45	50
Standard Deviation	1.41	2.24	-	-	-	3.28	4.83
Sample Variance	2.00	5.00	-	-	-	10.73	23.31
Range	2	6	-	0	-	14	29
Minimum	68	46	-	18	-	33	35
Maximum	70	52	-	18	-	47	64
Count	2	5	-	1	-	38	384

5C/D	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	31	53	63	55	39	57	-	59
Standard Error	-	1.10	3.80	1.36	-	0.51	-	-
Median	31	52	62	56	39	57	-	59
Mode	-	52	57	58	-	54	-	-
Standard Deviation	-	5.81	12.01	4.29	-	5.44	-	-
Sample Variance	-	33.81	144.32	18.40	-	29.61	-	-
Range	0	30	48	13	0	32	-	0
Minimum	31	44	43	46	39	44	-	59
Maximum	31	74	91	59	39	76	-	59
Count	1	28	10	10	1	116	-	1

Table 12. Summary of rockfish catch rate (numbers of fish per 100 hooks) for entire BC coast (IPHC area 2B).

All Areas	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	0.019	0.025	0.025	0.025	0.004	0.147	0.894
Standard Error	0.005	0.008	0.008	0.008	0.002	0.040	0.167
Median	0	0	0	0	0	0	0
Standard Deviation	0.068	0.101	0.101	0.101	0.026	0.520	2.182
Sample Variance	0.005	0.010	0.010	0.010	0.001	0.270	4.761
Minimum	0	0	0	0	0	0	0
Maximum	0.42	0.80	0.80	0.80	0.20	3.83	18.49
Total Number of Sets	170	170	170	170	170	170	170
Confidence Level (95.0%)	0.010	0.015	0.015	0.015	0.004	0.079	0.330
Coefficient of Variation	3.525	4.058	4.058	4.058	7.483	3.542	2.442

All Areas	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	0.002	0.146	0.053	0.078	0.001	0.835	0.011	0.002
Standard Error	0.002	0.058	0.024	0.021	0.001	0.157	0.005	0.002
Median	0	0	0	0	0	0	0	0
Standard Deviation	0.023	0.750	0.310	0.277	0.015	2.049	0.060	0.022
Sample Variance	0.001	0.562	0.096	0.077	0.000	4.199	0.004	0.000
Minimum	0	0	0	0	0	0	0	0
Maximum	0.22	5.99	3.70	2.03	0.20	11.74	0.42	0.21
Total Number of Sets	170	170	170	170	170	170	170	170
Confidence Level (95.0%)	0.003	0.114	0.047	0.042	0.002	0.310	0.009	0.003
Coefficient of Variation	9.203	5.121	5.855	3.557	13.038	2.453	5.545	9.195

Table 13. Summary of rockfish catch rate (numbers of fish per 100 hooks) for the PSMFC area grouping 3C/D, 5A.

3C/D, 5A	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	0.011	0.022	0.022	0.022	0.007	0.154	0.315
Standard Error	0.006	0.010	0.010	0.010	0.005	0.062	0.139
Median	0	0	0	0	0	0	0
Standard Deviation	0.046	0.075	0.075	0.075	0.038	0.457	1.028
Sample Variance	0.002	0.006	0.006	0.006	0.001	0.208	1.057
Minimum	0	0	0	0	0	0	0
Maximum	0.20	0.41	0.41	0.41	0.20	2.63	6.24
Total Number of Sets	55	55	55	55	55	55	55
Confidence Level (95.0%)	0.012	0.020	0.020	0.020	0.010	0.123	0.278
Coefficient of Variation	4.202	3.396	3.396	3.396	5.195	2.958	3.267

3C/D, 5A	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	0.004	0.029	0.018	0.059	-	0.683	0.004	-
Standard Error	0.004	0.022	0.013	0.039	-	0.211	0.004	-
Median	0	0	0	0	-	0	0	-
Standard Deviation	0.027	0.166	0.096	0.288	-	1.564	0.027	-
Sample Variance	0.001	0.028	0.009	0.083	-	2.446	0.001	-
Minimum	0	0	0	0	-	0	0	-
Maximum	0.20	1.21	0.60	2.03	-	7.32	0.20	-
Total Number of Sets	55	55	55	55	55	55	55	55
Confidence Level (95.0%)	0.007	0.045	0.026	0.078	-	0.423	0.007	-
Coefficient of Variation	7.416	5.688	5.302	4.911	-	2.291	7.416	-

Table 14. Summary of rockfish catch rate (numbers of fish per 100 hooks) for the PSMFC area 5B.

5B	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	0.031	0.018	0.018	0.018	0.004	0.053	0.875
Standard Error	0.013	0.011	0.011	0.011	0.004	0.029	0.220
Median	0	0	0	0	0	0	0.205
Standard Deviation	0.086	0.073	0.073	0.073	0.029	0.198	1.492
Sample Variance	0.007	0.005	0.005	0.005	0.001	0.039	2.225
Minimum	0	0	0	0	0	0	0
Maximum	0.42	0.42	0.42	0.42	0.20	1.01	7.31
Total Number of Sets	46	46	46	46	46	46	46
Confidence Level (95.0%)	0.026	0.022	0.022	0.022	0.009	0.059	0.443
Coefficient of Variation	2.780	4.112	4.112	4.112	6.782	3.739	1.705

5B	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	-	0.054	0.027	0.062	-	1.425	0.027	-
Standard Error	-	0.025	0.015	0.028	-	0.454	0.014	-
Median	-	0	0	0	-	0	0	-
Standard Deviation	-	0.167	0.104	0.193	-	3.078	0.093	-
Sample Variance	-	0.028	0.011	0.037	-	9.471	0.009	-
Minimum	-	0	0	0	-	0	0	-
Maximum	-	0.84	0.63	1.03	-	11.74	0.42	-
Total Number of Sets	46	46	46	46	46	46	46	46
Confidence Level (95.0%)	-	0.050	0.031	0.057	-	0.914	0.028	-
Coefficient of Variation	-	3.100	3.879	3.104	-	2.160	3.471	-

Table 15. Summary of rockfish catch rate (numbers of fish per 100 hooks) for the PSMFC area grouping 5C/D.

5C/D	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	0.007	0.017	0.017	0.017	-	0.145	1.417
Standard Error	0.005	0.014	0.014	0.014	-	0.069	0.398
Median	0	0	0	0	-	0	0
Standard Deviation	0.038	0.107	0.107	0.107	-	0.529	3.059
Sample Variance	0.001	0.011	0.011	0.011	-	0.280	9.359
Minimum	0	0	0	0	-	0	0
Maximum	0.21	0.80	0.80	0.80	-	3.23	18.49
Total Number of Sets	59	59	59	59	59	59	59
Confidence Level (95.0%)	0.010	0.028	0.028	0.028	-	0.138	0.797
Coefficient of Variation	5.384	6.308	6.308	6.308	-	3.651	2.159

5C/D	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	0.004	0.108	0.031	0.035	0.003	0.415	-	0.007
Standard Error	0.004	0.079	0.018	0.011	0.003	0.163	-	0.005
Median	0	0	0	0	0	0	-	0
Standard Deviation	0.029	0.605	0.135	0.086	0.026	1.251	-	0.037
Sample Variance	0.001	0.366	0.018	0.007	0.001	1.565	-	0.001
Minimum	0	0	0	0	0	0	-	0
Maximum	0.22	4.55	0.81	0.41	0.20	7.74	-	0.21
Total Number of Sets	59	59	59	59	59	59	59	59
Confidence Level (95.0%)	0.007	0.158	0.035	0.022	0.007	0.326	-	0.010
Coefficient of Variation	7.681	5.585	4.349	2.490	7.681	3.013	-	5.386

Table 16. Summary of rockfish catch rate (numbers of fish per 100 hooks) for the PSMFC area 5E.

5E	Bocaccio	Canary	China	Darkblotched	Greenstriped	Quillback	Redbanded
Mean	0.083	0.121	0.121	0.121	-	0.547	1.074
Standard Error	0.046	0.069	0.069	0.069	-	0.400	0.879
Median	0	0	0	0	-	0	0
Standard Deviation	0.144	0.217	0.217	0.217	-	1.263	2.780
Sample Variance	0.021	0.047	0.047	0.047	-	1.596	7.729
Minimum	0	0	0	0	-	0	0
Maximum	0.41	0.61	0.61	0.61	-	3.83	8.9
Total Number of Sets	10	10	10	10	10	10	10
Confidence Level (95.0%)	0.103	0.156	0.156	0.156	-	0.904	1.989
Coefficient of Variation	1.739	1.797	1.797	1.797	-	2.310	2.589

5E	Rosethorn	Rougheye	Shortraker	Silvergray	Tiger	Yelloweye	Yellowmouth	Yellowtail
Mean	-	1.441	0.493	0.512	-	1.440	0.041	-
Standard Error	-	0.768	0.367	0.220	-	0.570	0.041	-
Median	-	0	0	0.105	-	0.71	0	-
Standard Deviation	-	2.427	1.160	0.697	-	1.801	0.130	-
Sample Variance	-	5.892	1.344	0.485	-	3.245	0.017	-
Minimum	-	0	0	0	-	0	0	-
Maximum	-	5.99	3.70	1.63	-	4.76	0.41	-
Total Number of Sets	10	10	10	10	10	10	10	10
Confidence Level (95.0%)	-	1.736	0.829	0.498	-	1.289	0.093	-
Coefficient of Variation	-	1.685	2.352	1.360	-	1.251	3.162	-

Table 17. Catch data summary for quillback, yelloweye, redbanded and rougheye rockfishes caught on the IPHC SSA survey from 1995 to 2007, for overlapping stations effectively fished in all years. For each year, the number of stations fished, the percent of zero catches, and the log2 median catch rates (#fish/effective skate) of the non-zero catches are reported.

		Quillback rockfish		Yelloweye rockfish		Redbanded rockfish		Rougheye rockfish	
Year	# Stations fished	Percent Zero Catch	Median	Percent Zero Catch	Median	Percent Zero Catch	Median	Percent Zero Catch	Median
1995	79	89	-1.315	71	2.146	61	2.132	91	0.009
1996	86	85	-0.720	62	1.281	44	1.087	88	1.270
1997	92	93	0.644	66	2.000	66	1.679	93	1.471
1998	69	94	1.082	68	1.424	51	1.585	93	0.299
1999	76	95	0.281	67	0.848	54	1.866	89	0.857
2000	72	93	0.509	72	2.216	60	2.049	88	0.509
2001	75	97	1.396	73	2.424	60	2.148	92	1.587
2002	75	96	-0.006	77	1.580	73	0.987	93	0.994
2003	74	91	0.179	61	-0.183	54	0.317	85	-2.006
2004	74	91	-2.006	64	0.802	50	1.082	86	1.594
2005	76	95	-0.312	58	0.509	49	0.888	87	-0.806
2006	75	93	-0.576	68	0.424	52	0.753	85	-0.269
2007	75	93	-2.315	71	0.687	55	0.273	87	-0.797

Table 18. Catch data summary for quillback, yelloweye, redbanded and rougheye rockfishes caught on the IPHC SSA survey from 2003 to 2007, for all stations fished. For each year, the number of stations fished, the percent of zero catches, and the log2 median catch rates (#fish/100 hooks) of the non-zero catches are reported.

		Quillback rockfish		Yelloweye rockfish		Redbanded rockfish		Rougheye rockfish	
Year	# Stations fished	Percent Zero Catch	Median	Percent Zero Catch	Median	Percent Zero Catch	Median	Percent Zero Catch	Median
2003	170	82	-1.413	58	-0.178	58	0.335	87	-1.197
2004	170	86	-1.980	59	0.596	56	0.975	83	-0.165
2005	170	85	-0.230	59	0.508	55	1.000	84	-1.296
2006	170	83	-0.575	61	0.250	59	0.879	89	-0.100
2007	170	86	-0.296	67	0.521	61	0.493	89	-2.275

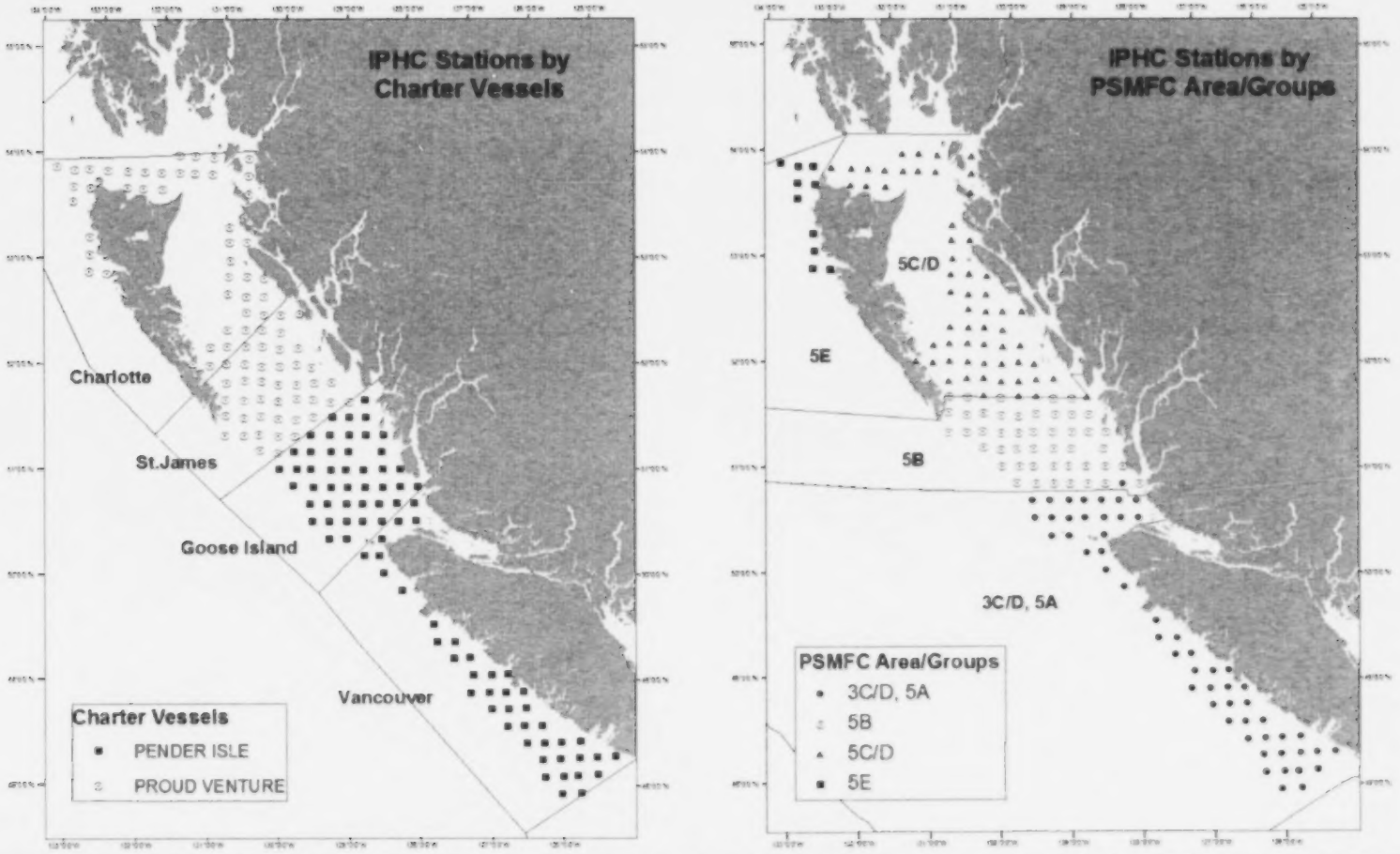


Figure 1. Distribution of IPHC survey stations by charter vessel illustrating IPHC charter region boundaries (left panel) and PSMFC Areas (right panel).

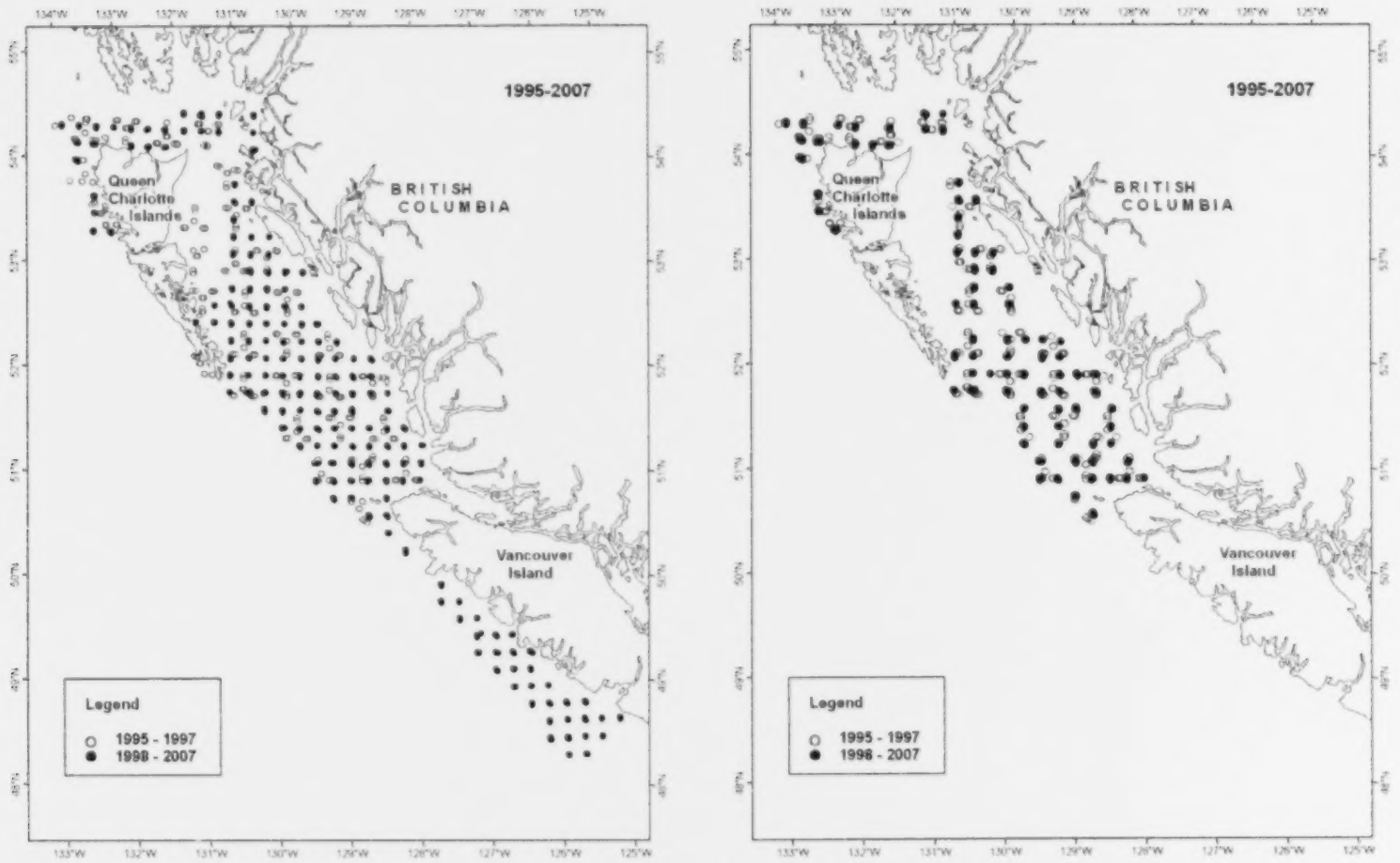


Figure 2. Locations of all 1995 - 2007 IPHC SSA survey stations (left panel), and the subset of stations, sampled in all years (1995 – 2007) and located within 10 kilometres of each other, included in the relative abundance index calculations (right panel).

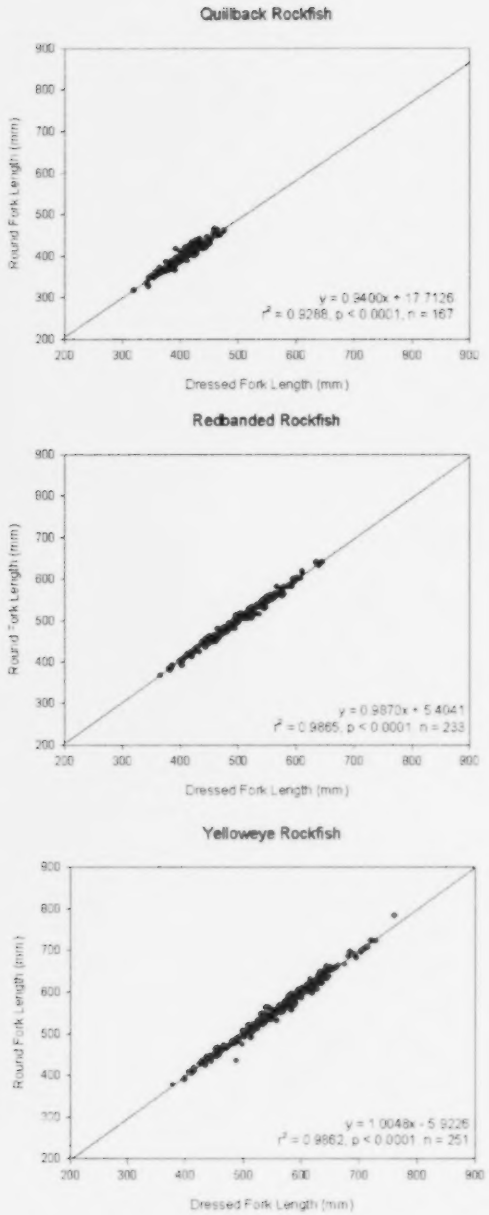

Quillback Rockfish
Round Fork Length (mm)
Dressed Fork Length (mm)
y = 0.9400x + 17.7126
r² = 0.9268, p < 0.0001, n = 167
Redbanded Rockfish
Round Fork Length (mm)
Dressed Fork Length (mm)
y = 0.9870x + 5.4041
r² = 0.9865, p < 0.0001, n = 233
Yelloweye Rockfish
Round Fork Length (mm)
Dressed Fork Length (mm)
y = 1.0048x - 5.9226
r² = 0.9862, p < 0.0001, n = 251

Figure 3. Linear regressions, by species, of round fork length on dressed fork length, for quillback, redbanded, and yelloweye rockfishes.

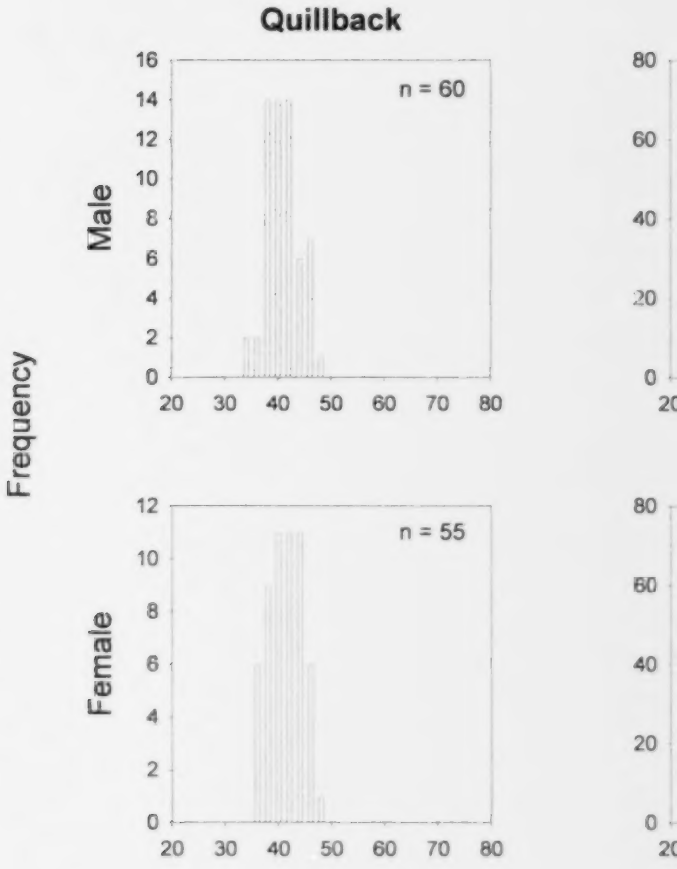
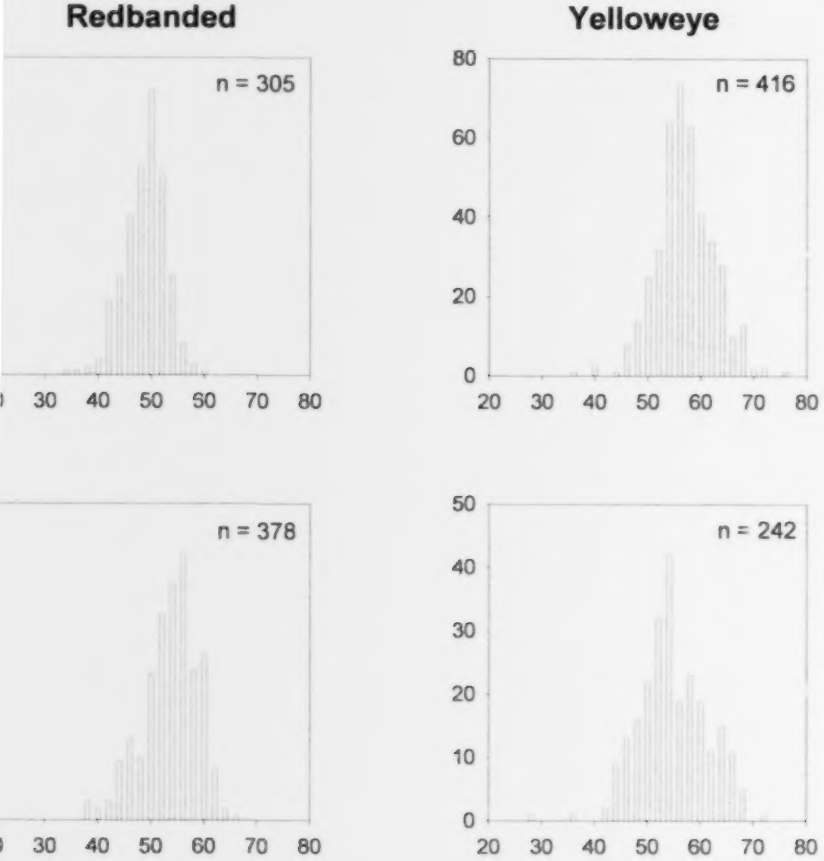


Figure 4. Dressed length frequency distributions, by sex, fo



r quillback, redbanded, and yelloweye rockfishes with sample sizes (n).

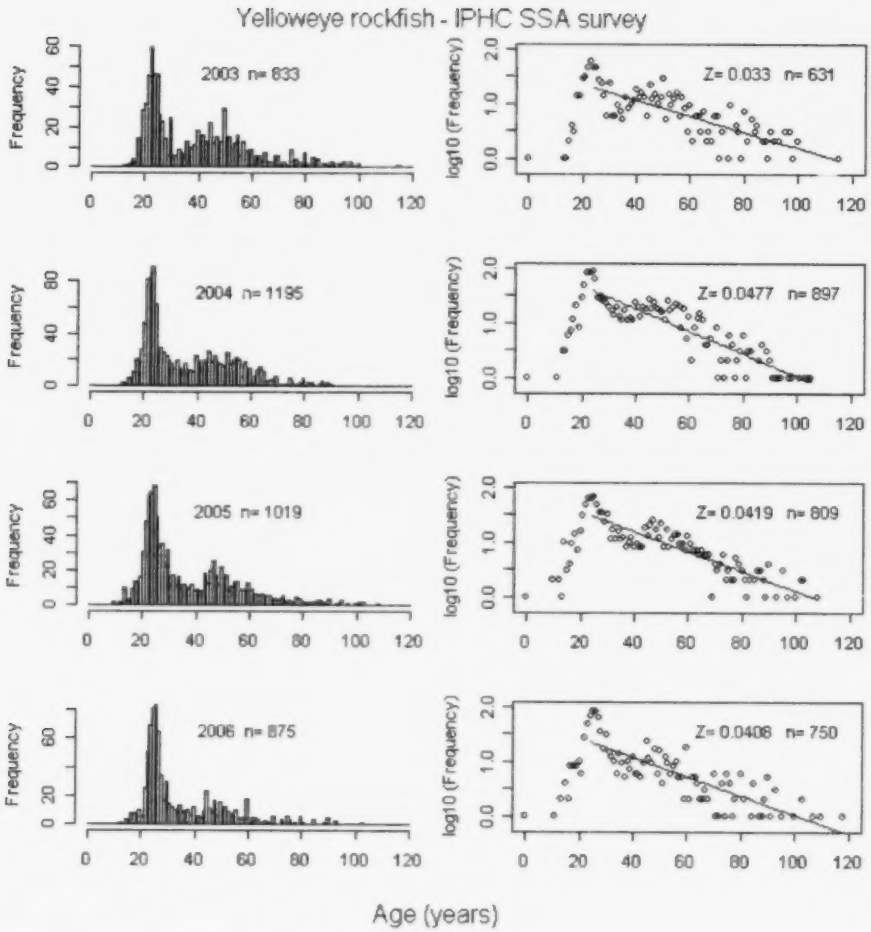


Figure 5. Yelloweye rockfish catch curves (frequency at age) (left), and mortality rates (Z) from the linear regression of $\log_{10}$ catch on age (right), for 2003 to 2006.

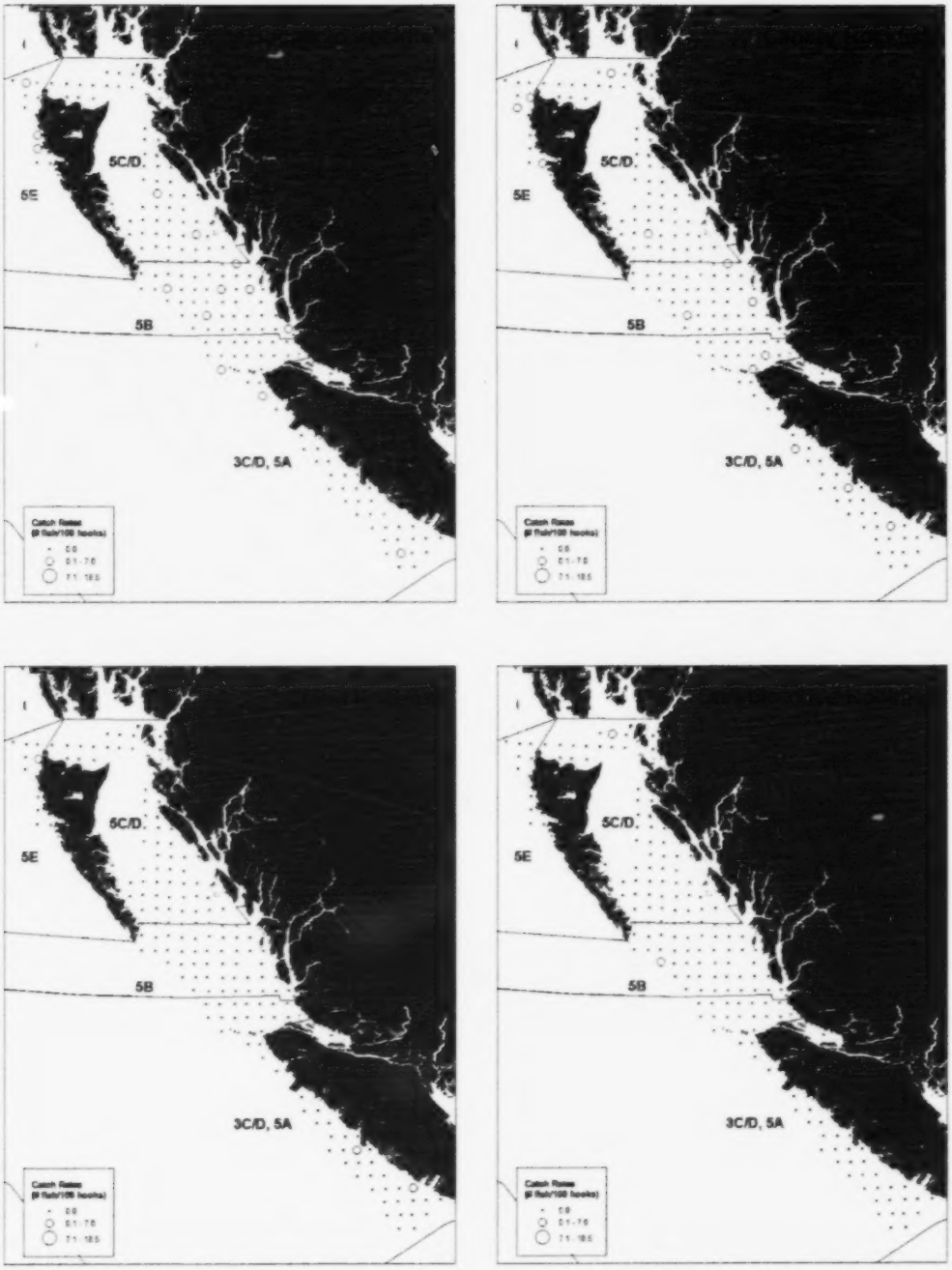


Figure 6. Catch rates (in numbers of fish per 100 hooks) displayed by station surveyed. Common names are shown in the upper right corner of the panel.

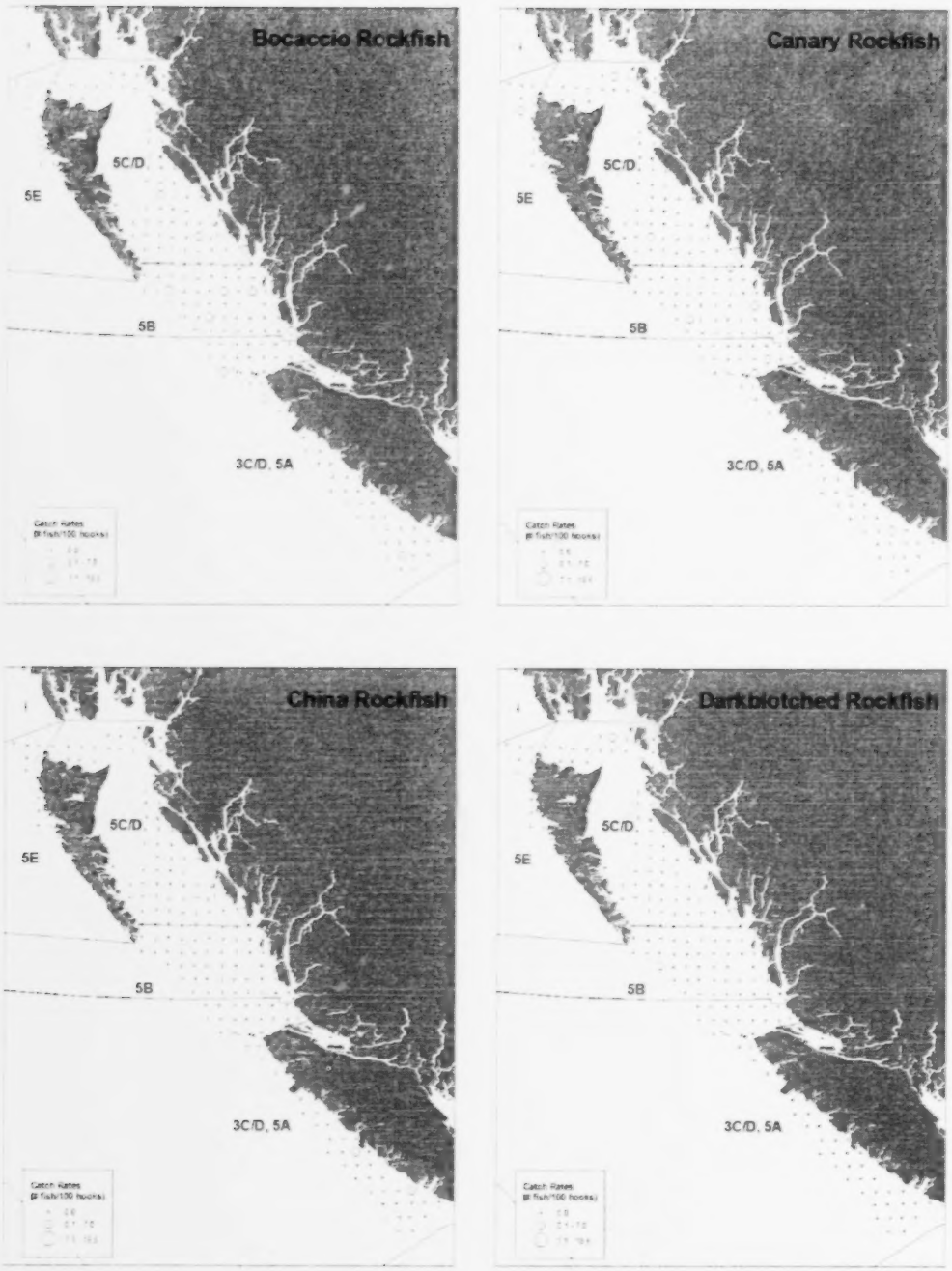


Figure 6. Catch rates (in numbers of fish per 100 hooks) displayed by station surveyed. Common names are shown in the upper right corner of the panel.

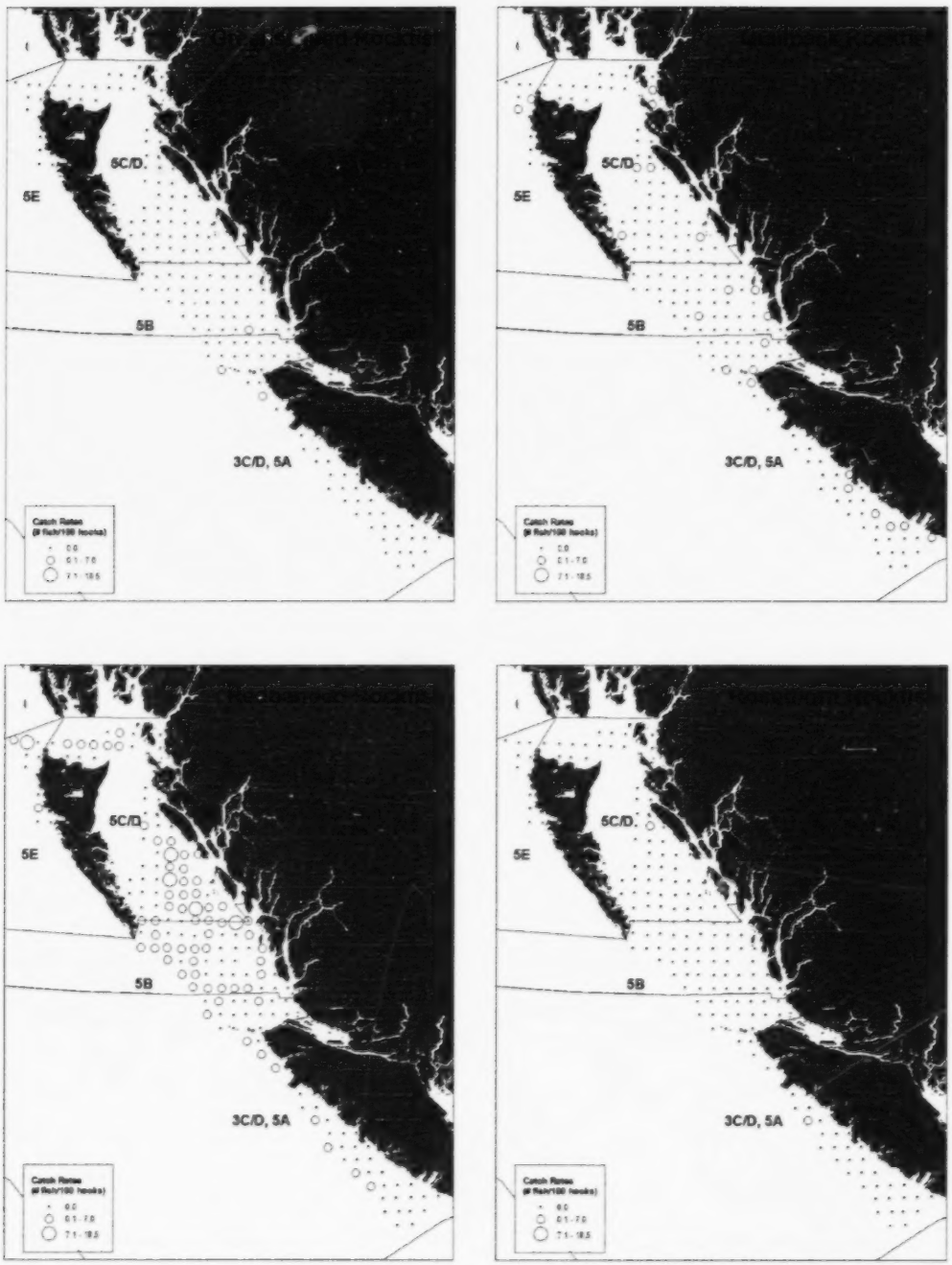


Figure 6 continued.

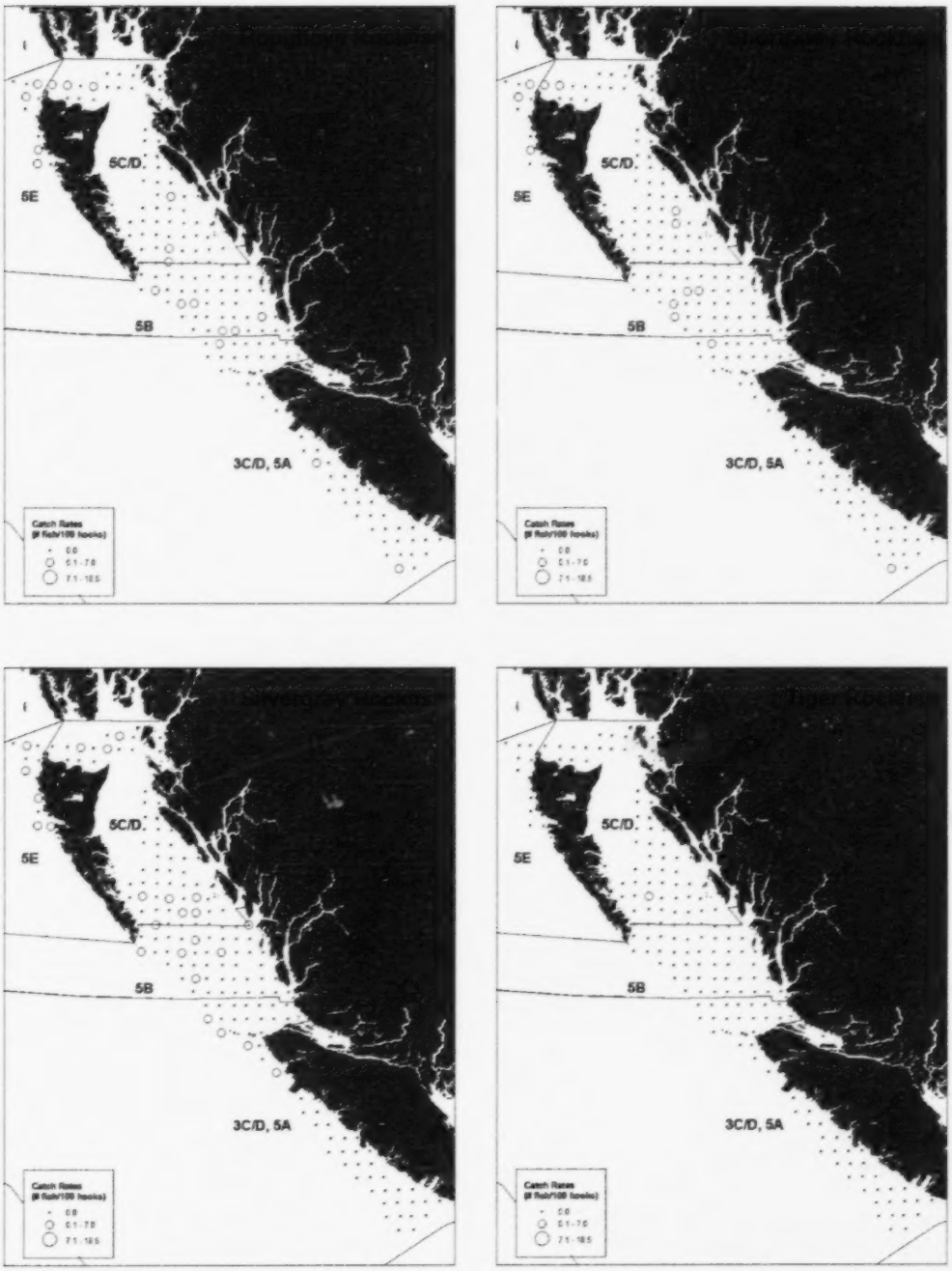
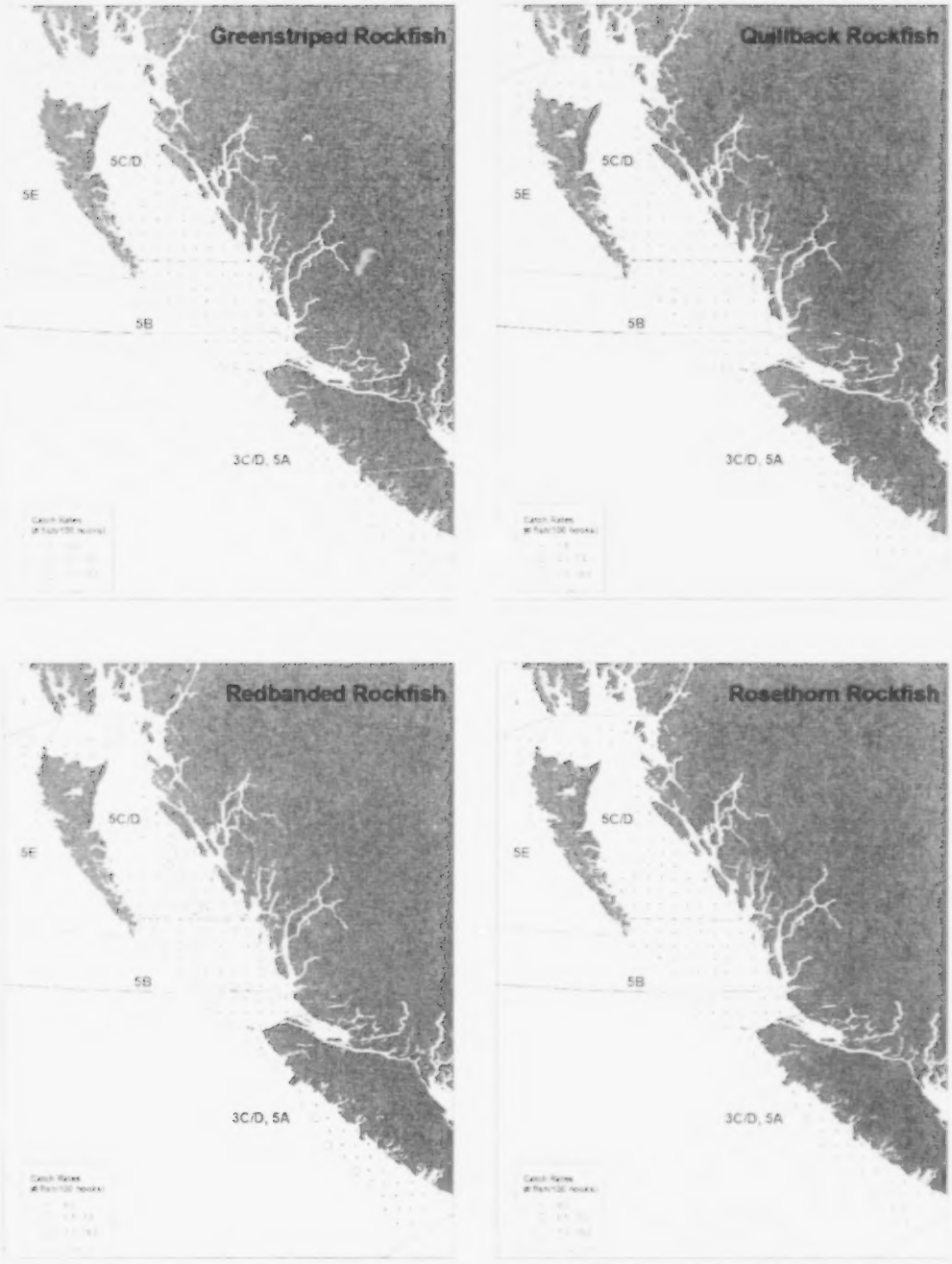


Figure 6 continued.



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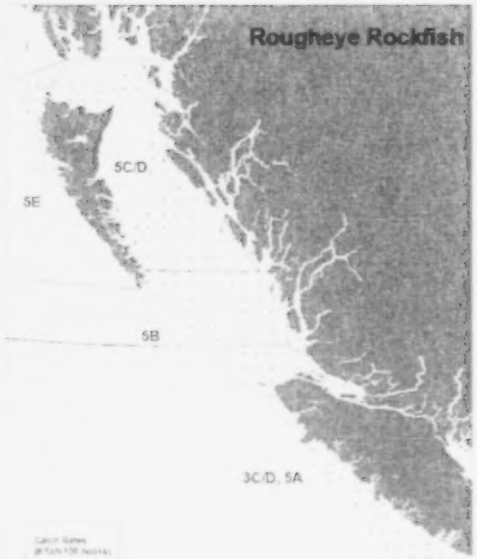
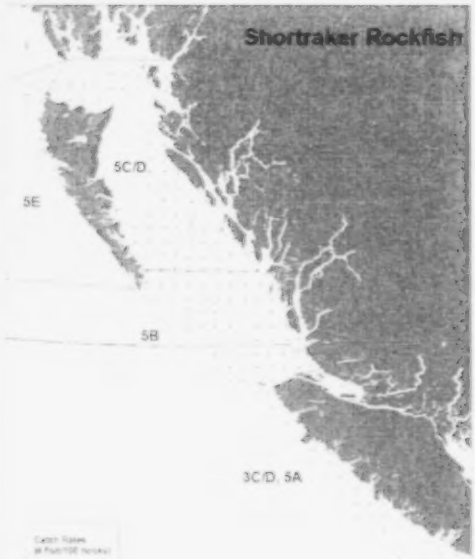
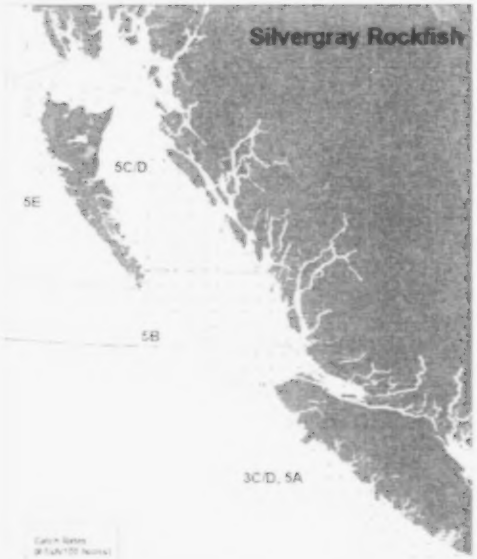






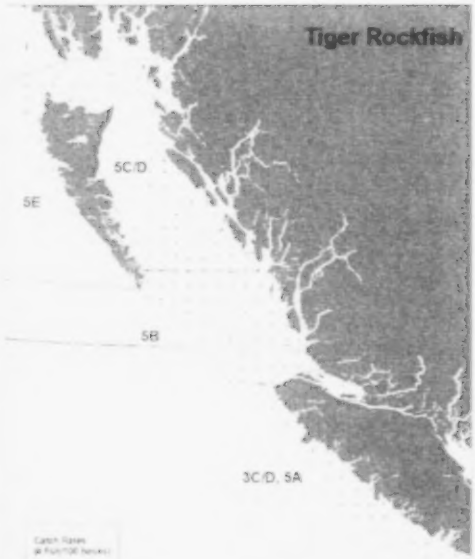
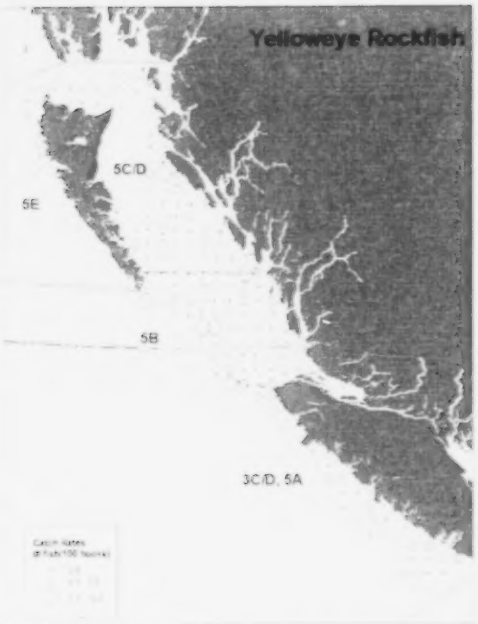
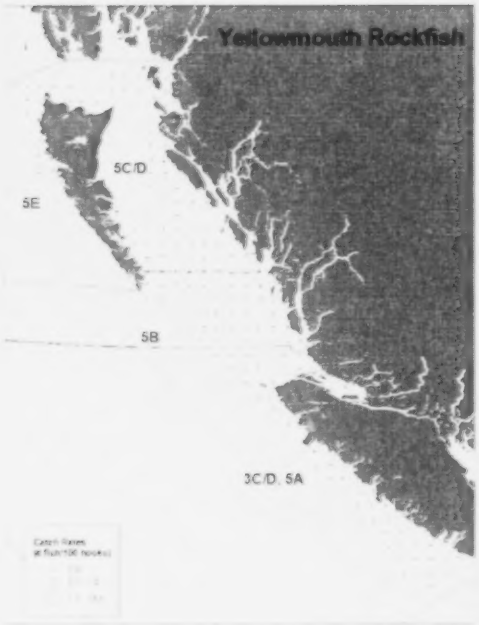


Figure 6 continued.





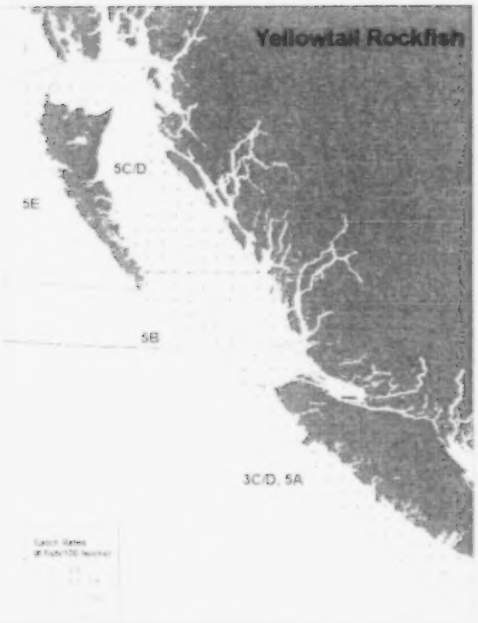


Figure 6 continued.

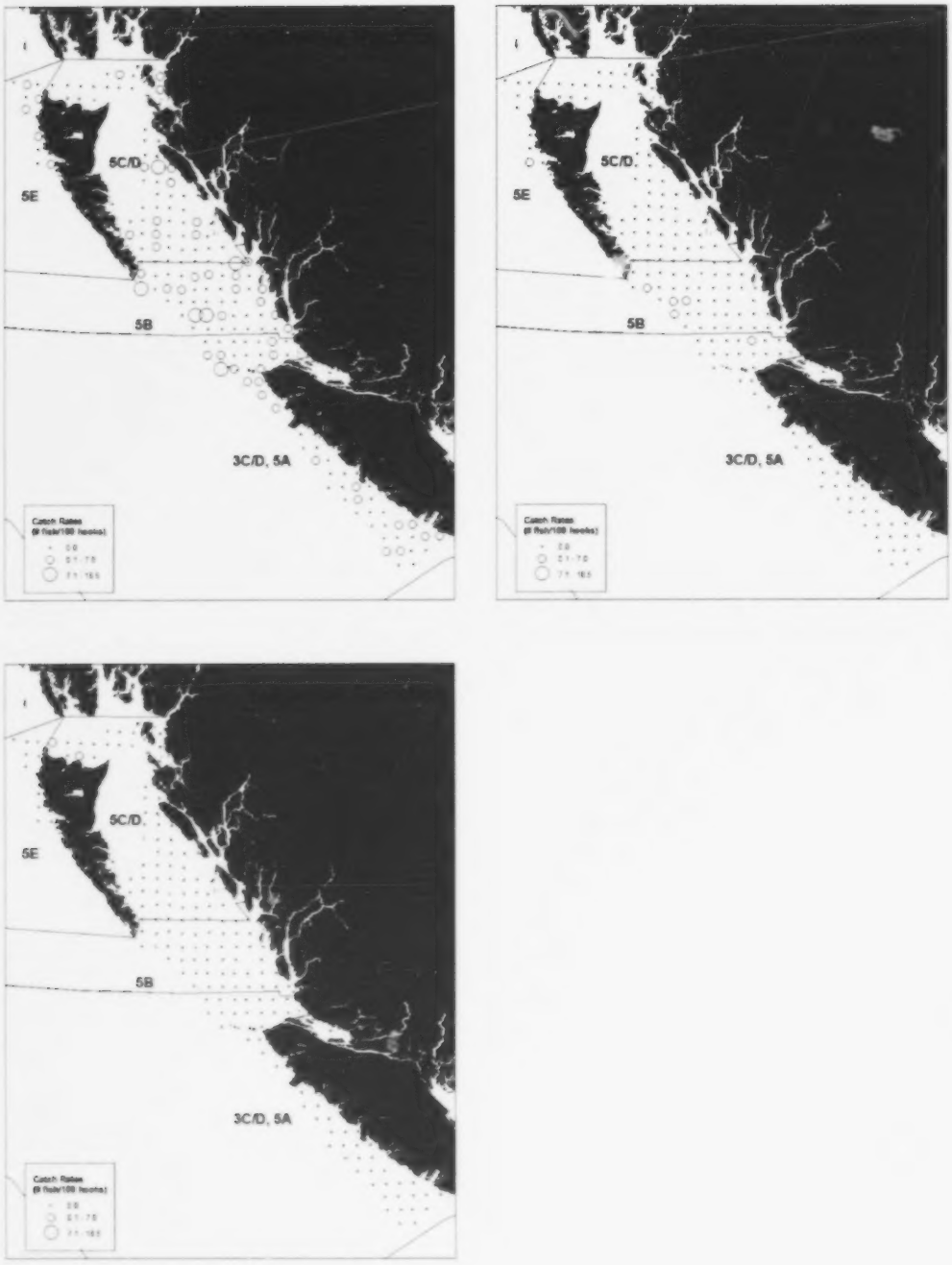
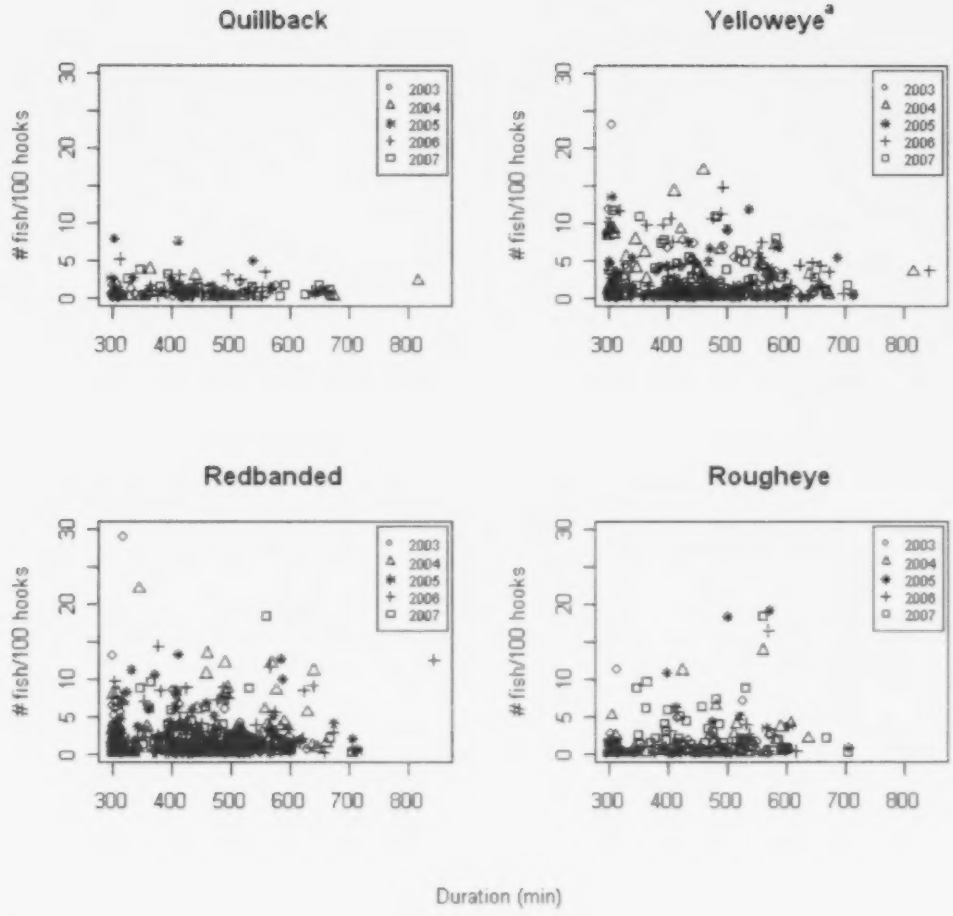


Figure 6 continued.



[a] One set for yelloweye rockfish, with duration of 1126 min and a catch rate of 0.43 fish/100 hooks, is not shown on this plot.

Figure 7. Catch rates (number of fish/100 hooks) displayed by set duration for quillback, yelloweye, redbanded, and rougheye rockfishes.

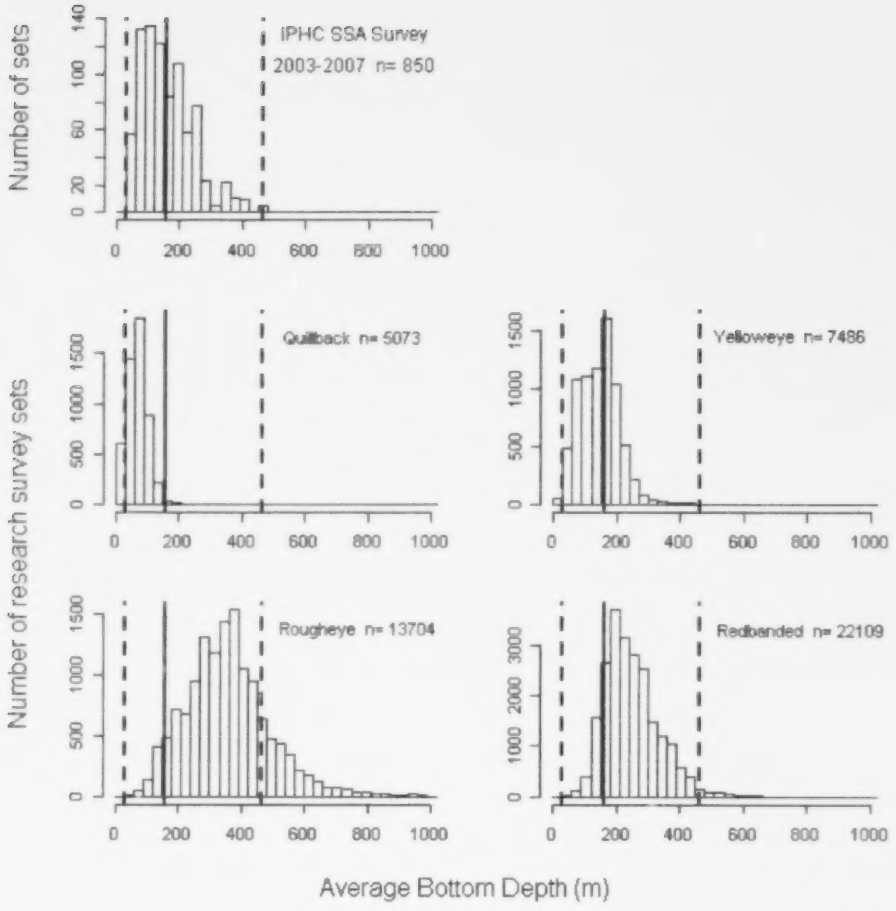


Figure 8. Longline set depths from the IPHC SSA Survey during 2003 to 2007 (upper left panel) compared with the typical set depths where quillback, yelloweye, rougheye and redbanded rockfishes are caught during Fisheries and Oceans Canada research surveys (1965-2008, all gear types). The solid line represents the mean bottom depth fished, while the dashed lines are the minimum and maximum bottom depths fished, during the IPHC SSA surveys (2003 to 2007).

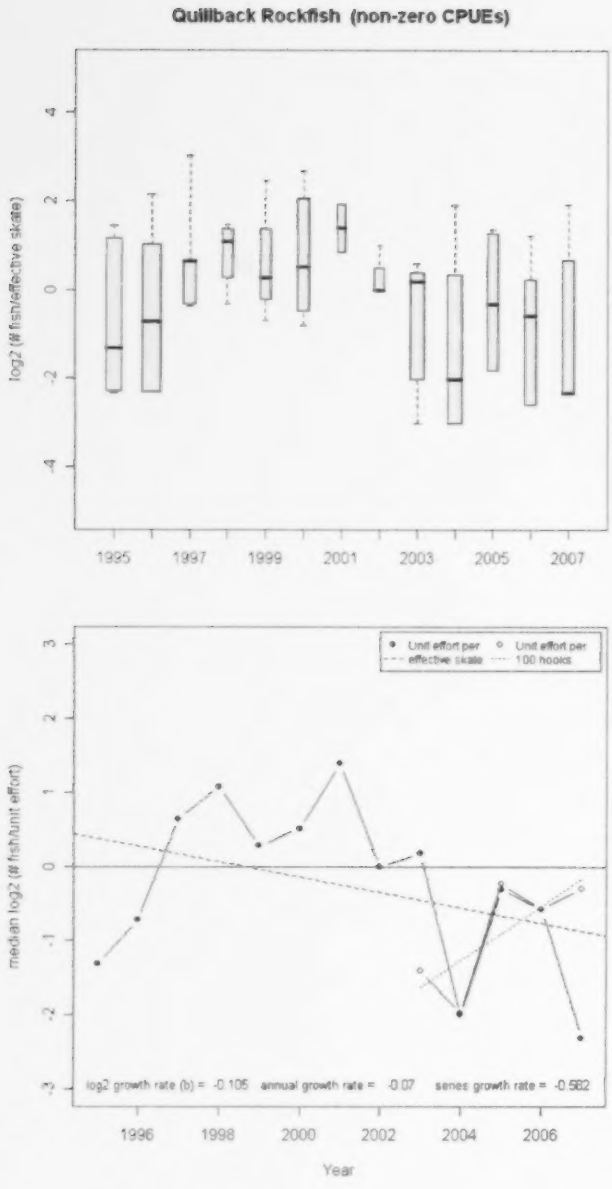


Figure 9. Long-Term Index (log_2 (number of fish/effective skate)) for non-zero quillback rockfish catches (1995 to 2007). Boxplots summarize annual non-zero data with a box for the upper and lower hinges of the data, bar for the median, and whiskers for the extremes of the data. The regression line of the median non-zero catch rates is shown as a dashed line (1995 to 2007), while the median non-zero catch rates for the Short-Term series relative abundance index (log_2 (number of fish/100 hooks)) for non-zero catches is shown as a dotted line (2003 to 2007). Annual growth rate and the growth rate for the 1995 to 2007 series of surveys are shown.

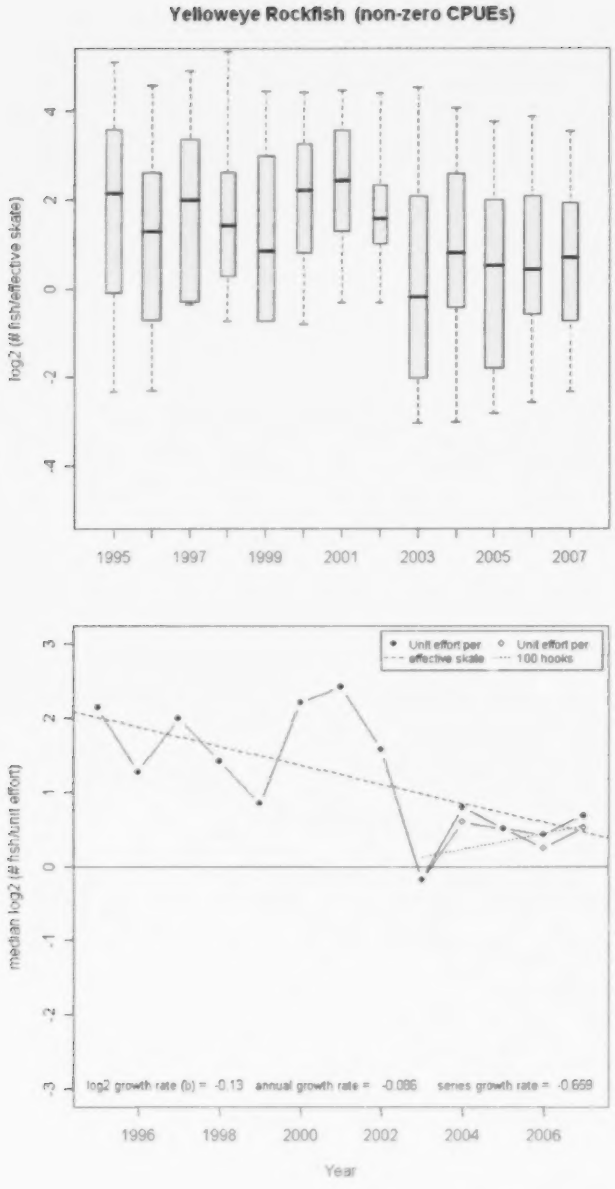


Figure 10. Long-Term Index ($\log_2$ (number of fish/effective skate)) for non-zero yelloweye rockfish catches (1995 to 2007). Boxplots summarize annual non-zero data with a box for the upper and lower hinges of the data, bar for the median, and whiskers for the extremes of the data. The regression line of the median non-zero catch rates is shown as a dashed line (1995 to 2007), while the median non-zero catch rates for the Short-Term series relative abundance index ($\log_2$ (number of fish/100 hooks)) for non-zero catches is shown as a dotted line (2003 to 2007). Annual growth rate and the growth rate for the 1995 to 2007 series of surveys are shown.

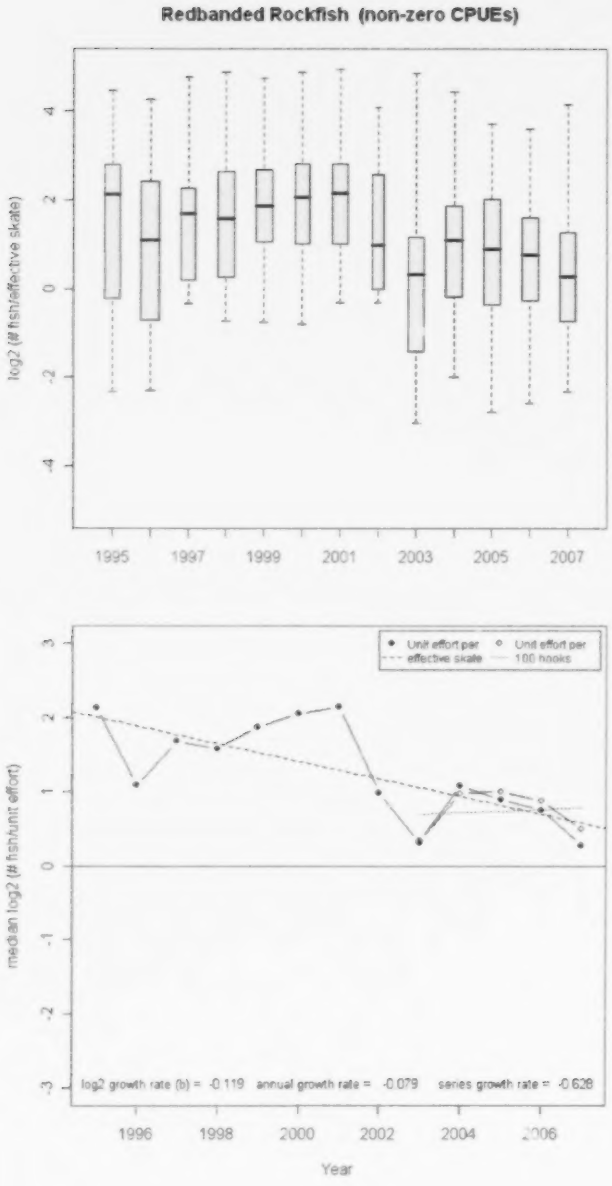


Figure 11. Long-Term Index (log_2 (number of fish/effective skate)) for non-zero redbanded rockfish catches (1995 to 2007). Boxplots summarize annual non-zero data with a box for the upper and lower hinges of the data, bar for the median, and whiskers for the extremes of the data. The regression line of the median non-zero catch rates is shown as a dashed line (1995 to 2007), while the median non-zero catch rates for the Short-Term series relative abundance index (log_2 (number of fish/100 hooks)) for non-zero catches is shown as a dotted line (2003 to 2007). Annual growth rate and the growth rate for the 1995 to 2007 series of surveys are shown.

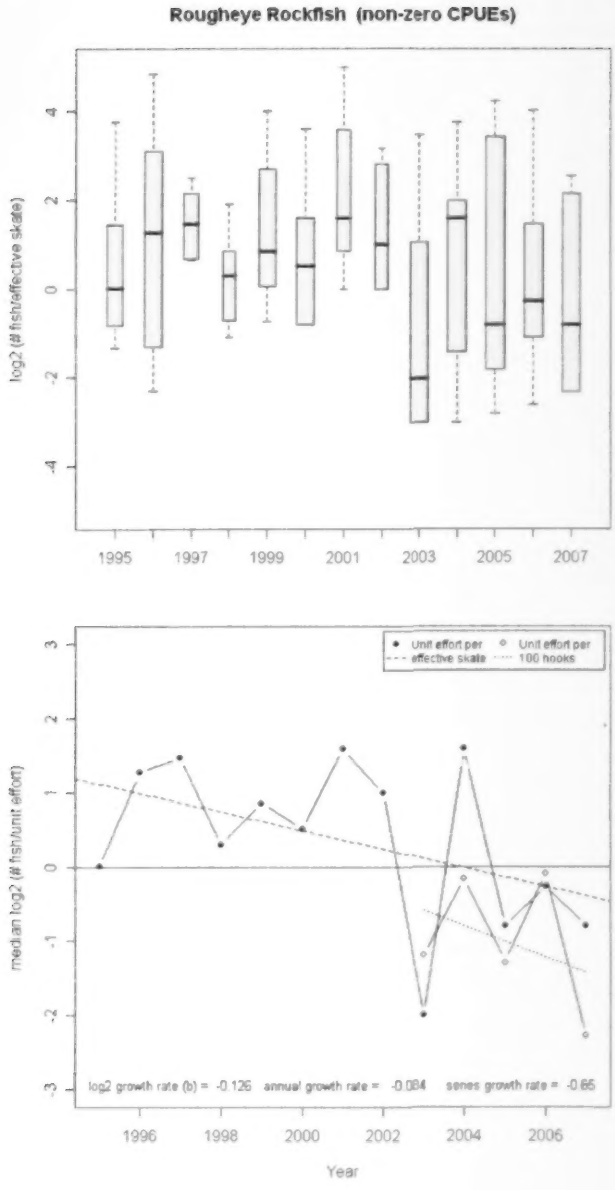


Figure 12. Long-Term Index (log_2 (number of fish/effective skate)) for non-zero rougheye rockfish catches (1995 to 2007). Boxplots summarize annual non-zero data with a box for the upper and lower hinges of the data, bar for the median, and whiskers for the extremes of the data. The regression line of the median non-zero catch rates is shown as a dashed line (1995 to 2007), while the median non-zero catch rates for the Short-Term series relative abundance index (log_2 (number of fish/100 hooks)) for non-zero catches is shown as a dotted line (2003 to 2007). Annual growth rate and the growth rate for the 1995 to 2007 series of surveys are shown.

Appendix A. 2007 IPHC Survey Sampling Protocol

2007 Protocols for non-halibut data collection in Area 2B

Collection of non-halibut data in Area 2B

From 2002 through 2006, the Department of Fisheries and Oceans Canada (DFO) contracted Archipelago Marine Research (AMR) to place biologists on International Pacific Halibut Commission (IPHC) survey vessels fishing in Canadian waters. The aim of their work was two-fold: to record whole haul hook occupancy and to collect biological data from rockfish. In 2007 the IPHC will train survey biologists to collect this data during summer charter, and charter vessels in Area 2B will carry 3 IPHC biologists, for this purpose. The goals of the project remain the same, and every effort will be made to ensure continuity of data fields and collection methods from 2006 to 2007.

Priority work for the sampler is to determine the hook by hook catch. The biological sampling of rockfish will be done opportunistically and in no way should impinge upon standard IPHC setline survey objectives. The goal of bringing this project in-house was to further enhance the cooperative work environment on the charter vessels. Towards this end, sea samplers should cycle through each sampling role: deck, shack, and third.

Hook-by-Hook Occupancy:

Overview:

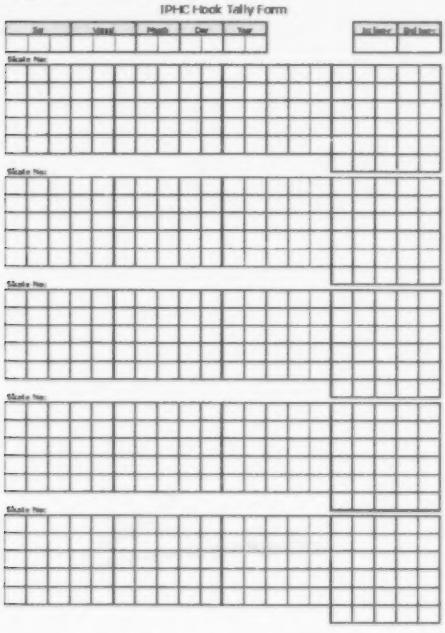
The IPHC collected hook-by-hook occupancy data on standardized stock assessment (SSA) survey from 1993-1996 for its own research projects. Several individual projects in later years also required this data to be collected. Sea samplers will use nomenclature developed during these projects to record information on deck sheets.

The goal of whole-haul hook-by-hook sampling is to record the species caught in order along the line. Scientists at DFO will use this spatial information to examine the grouping of fish on the line by species. They may also overlay this catch data on habitat type to look for correlations between the two.

Hook Tally Form: (See Figure 1)

Each tally sheet represents one IPHC set. Each sheet has 5 blocks of squares. Each block of squares represents one skate of gear. Each block contains 105 squares and each square represents one hook. If the gear is within acceptable limits, there will never be more than 105 hooks per skate, and the hooks from one skate of gear should fit into one block of squares. **Under no circumstances should you record information about two different skates of gear within one block of squares.**

Figure 1: Hook Tally Form



Procedure:

1. Fill out header information prior to station haul back. Transcribe set number, vessel code, and date from the Captain's Set Form. Copy the buoy information from the Rite-in-the-Rain notebook.

2. Observe retrieval of the first flag and buoy. Label the top block of squares on the Hook Tally Form with the appropriate skate number. Skates are numbered sequentially in the order set. If the gear is hauled backwards, you will begin the hook tally at the top block of squares using the **largest** skate number.

3. Find a safe location on deck where you can observe the line as it breaks the water surface and passes the rollerman. It is important to have a clear view of the hooks as they come out of the water.

4. Record the state or occupancy of each hook, beginning at the top left-most square of the block and continuing across to the end of the row, then moving to leftmost square on the second line and working across that row. Continue in this manner to the end of the skate. This process should be intuitive, as it is similar to reading a book. Always put the first hook of the set in the top, left-hand square, regardless of which end of the string the vessel begins haul-back from.

   Identify and record all animals and invertebrates to the species level. Use the standard set of shorthand codes supplied in Appendix 1. Please use an upper case letter for each code. An example of the top 10 animal codes used in 2006 is shown in Table 1. If there is not a shorthand code assigned to a species, write the numeric IPHC species code for that animal in the square. A detailed list of IPHC species codes is found in the 2007 SSA survey manual.

Table 1: Example of frequently used hook tally codes

Common Name	Hook Tally Code
Spiny Dogfish	D
Pacific Halibut	H
Sablefish (Black cod)	BC
Redbanded Rockfish	RB
Yelloweye Rockfish	YE
Arrowtooth Flounder	A
Longnose Skate	LN
Lingcod	LC
Starfish, unident.	ST
Rougheye Rockfish	RE

If the hook 'catches' or snags an inanimate object, fill in the square for that hook with the inanimate object code (IPHC species code 100).

When a hook has not caught an object, record a code describing the state of the hook (see Table 2).

Table 2 : Shorthand codes for hook status

Hook status	Hook Tally Code
Empty Hook	E
Bait	B
Skin Hook	S
Bent/Broken/Missing	BM
Two spp/hook	depredator predator
Head only	*code* %
Lost at roller	*code* #
Line Parts	/
Snarl- write brackets around the hooks involved in the snarl	[ ]

For the Empty Hook code, you may use a lower case, hand-written "e", as long as the letter is written clearly.

5. When there is a skate change, make sure to begin recording hook occupancy in a new block of squares for the new skate. If there were less than 105 hooks on the skate, leave the remaining squares empty. Remember, hooks from different skates should never be recorded in adjacent squares.

6. Additional notes:

   If you are not 100% confident you can correctly identify a discarded organism to the species level, ask the rollerman to bring it on board. Only unidentifiable escaped organisms should be recorded using an 'unidentified' code.

   Code thornyheads on the line as "UI, Unidentified Thornyhead" whenever you do not have the fish in hand to identify it to the species level.

   Record the organism as soon as you are able to accurately identify it; you do not need to wait for the hook to break the water or cross the roller to count the organism as caught.

Protocols for anomalous events: (Refer to Figure 2 throughout)

Gear snarl

Gear snarls are the most frequent problem encountered during longline operations. When the gear becomes snarled it becomes difficult to accurately record the sequential order of hooks and catch. In this situation record all hooks and catch in the squares provided (do your best at estimate the sequential order) and then separate the hooks involved in the snarl with a set of square brackets ([ ]). The brackets will inform the data transcribers that these items were caught, but the order is unclear because of a gear snarl.

Parting of the gear

When the longline parts the vessel must travel to the other end (hereafter referred to as second end) in order to retrieve the gear. At the time when the groundline parts you should place a backslash (\ ) after the last retrieved hook. When haul-back resumes from the second end you will need to record hook status in reverse order starting with the last square in the bottom block of squares. You will record hook status in reverse order from right to left following the entire length of the row. After the row is filled you will move to the next row above and start the process in the same manner. After the skate of gear finishes you will move to the next block of squares directly above and start in reverse order as before. In short, you will be filling the squares with hook information in exactly the opposite manner from the way you were filling the squares before the gear parted. As a result, the total sequence of hooks on the page will still match the sequence of hooks on the line. Record the details of the gear parting in the logbook.

If the line parts before a hook has been retrieved, complete the hook tally form as normal and make a note of the event in the logbook.

Two species caught on one hook

When two fish are caught on one hook, the first fish hooked is considered the predator, because it was predating the bait. The second fish is considered the depredator, because it was attacking the predator. On the hook tally form, record the depredator first. Circle this code and then record the code for the predator to the right of the circled depredator code. (e.g. (LC) RE)

Fish head: only the fish head remains on the hook

Write a percent (%) sign after the code for the animal, within the box for that hook.

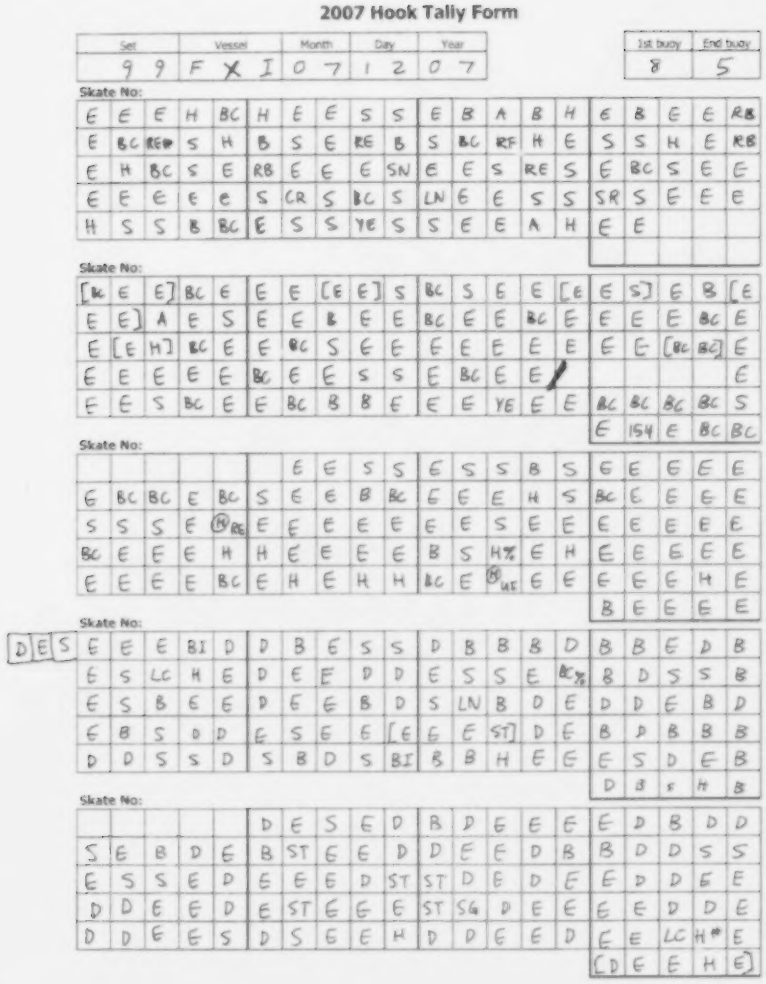
Animal lost at the roller (LAR)

Write a pound (#) sign after the code for the animal, within the box for that hook. Only retained species can be lost at the roller. In 2007, only rockfish, pacific cod, and halibut will be retained during survey, so only these species can be LAR.

A skate has >105 hooks

If a skate has more than 105 hooks record occupancy of **all** hooks, using the side margin of the data form if necessary, clearly indicating hook order of any hooks outside of the skate block. Document your actions in the logbook, notify the other biologists, and ensure the crew maintains the gear to survey standards in the future.

Figure2: Hook Tally Form Example



Rockfish Biological Data Collection

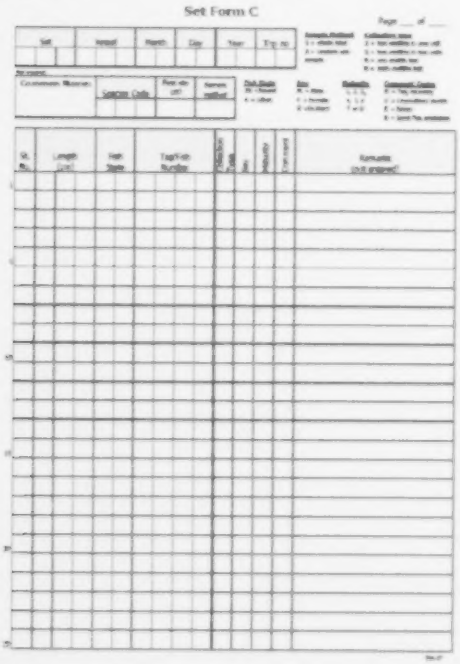
Overview:

The vessel will retain all rockfish from each set. The sampling goal is to collect length, sex, maturity and otoliths (LSMO) from retained *Sebastes* species, similar to the way data is collected from individual halibut on survey. LSMO data will not be collected from *Sebastolobus* species (thornyheads). Because the third sampler will be occupied with hook tallies during haulback, and the deck sampler will be occupied with halibut sampling, LSMO samples will normally be collected after haulback is finished, as the boat travels to the next station. As with halibut sampling, the shack sampler will record rockfish data on the forms and tray the otoliths. The 'deck' sampler and 'third' sampler will work together to collect and process the rockfish.

Set Form C: *(see Figure 3)*

Use the Set Form C to record data about one species on the front of the page, and the same or a different species on the back of the page. Do not record data from more than one set on one Set Form C. Fill out all header information, even if data on both sides of the paper are from the same species.

Figure 3:



Procedure:

1. Rockfish will be collected throughout the set. They do not have to be separated according to skate. It is best to have the crew pre-dress rockfish as the fish come on board (remove the gills and slit the bellies, leaving the gonads intact). This will speed up the sampling and decrease the time required by IPHC staff and vessel crew to process the samples after haulback is complete.

2. After all the rockfish from the set have been collected, determine the total piece count.

3. If there are less than 50 rockfish in total, sample all rockfish for LSMO, recording the data on Set Form C.

4. If there are more than 50 rockfish in the set, sub-sample 50 rockfish for LSMO. You will sample each species in the following order of priority: **yelloweye, redbanded, quillback, copper, china, tiger** and **black** rockfish, as shown in Table 3. All species not appearing in this list are of lower priority than black rockfish.

Table 3: Rockfish LSMO priority rankings:

	Species
1	Yelloweye
2	Redbanded
3	Quillback
4	Copper
5	China
6	Tiger
7	Black

   a. Begin by sorting the rockfish according to species. Start subsampling with the highest priority fish.

   b. If there are more than 50 of the highest priority rockfish per set randomly sub-sample 50 pieces of that species for LSMO. Leave the remaining rockfish unsampled.

   c. If there are less than 50 of the highest priority rockfish sample all the first species and make up the rest of the 50 pieces with other rockfish, sampled according to their priority, to reach a total of 50 rockfish sampled per set. Do not sample a species if there are still unsampled fish of a higher priority species available.

   d. Sub-sampling protocol

      i. Count the total number of pieces in the group you want to sub-sample (eg. 82 yelloweye)

      ii. Determine the number of fish needed to reach the correct sub-sample size (eg. 50 of 82 yelloweye)

      iii. Calculate the percentage of the total needed to reach the desired sampling rate, rounding to the nearest percent (eg. 50 out of 82 yelloweye = 61%)

iv. Locate the random sample table (RST) that matches the desired sampling rate. The RST consists of rows of 0's and X's: each digit represents one fish, and indicates whether or not you should include that fish in the sub-sample.

0 = do not sample
X = sample this fish

v. Starting at the top left corner or the table and reading across the rows as if reading a book, assign a 0 or X to each fish. To do this the deck sampler should hold the fish up one at a time, and the shack sampler will direct them to eliminate or add the fish to sub-sample, according to the RST. The deck sampler should not be able to read the RST as they choose which fish to present next.

vi. Continue in this manner until you have gone through all of the fish. Do not stop selecting the sub-sample if it reaches 50, but continue to assign a 0 or X to every fish of that species in that set. You may end up with a few less or a few more fish in your sample than you were targeting. This is okay: it is more important to take a random sub-sample than it is to reach an exact sampling goal. In order for every fish in the random sub-sample to have an equal opportunity to be selected, every fish of the group must be assigned a 0 or X.

vii. After the last 0 or X is used, mark the RST with a slash and the set number. The next time you use that RST begin at the next number after the slash.

viii. Once you have selected the sub-sample, collect LSMO on the Set Form C.

e. If time permits, you can whole-haul sample more than 50 rockfish per set. A whole haul sample is preferred, but sampling more than 50 fish is not required.

f. It is possible that on stations with low halibut catch the deck sampler may have time to begin processing rockfish samples during haulback. If this is the case, they must whole haul sample the species sampled, as you will not be able to create a random sub-sample after you have begun a whole-haul sample.

g. There may be times when you will not be able to complete all the required rockfish sampling before it is time to haul the next string. If this situation is encountered, the fish should be placed in baskets or buckets and stored out of the way in a cool place, (and separate from fish on the next string) until there is sufficient time to complete the sampling. You may need to store the fish in the hold to maintain quality and food safety. There will be time to complete the sampling at the end of the day.

Form Instructions:

Header

Transcribe the set number, vessel code, date, and trip number from the Captain's Set Form.

Common name

Write the common name of the species whose data will be recorded on the page.

Species code

Record the numeric IPHC species code of the sampled fish.

First oto cell

Record the cell coordinates of the first otolith collected for this page. This value will change for every page within a set. Record the coordinates in the following format: "A2".

Sample method

Sample method describes the sampling system. There are two codes:

1 = whole haul: all retained fish of this species were sampled
2 = random sub-sample: a random collection from the retained fish of this species was sampled.

In one set, the sample method for one species must be the same for all fish of that species. For example, if you begin sampling redbanded rockfish using a random sub-sample, and decide to switch to a whole-haul sample method part-way through sampling, the sample method code for all redbanded rockfish in this set must be changed to code 1, whole haul.

Skate number

Leave this field blank in 2007 when collecting rockfish biological data in Area 2B.

Length

The fork length of *Sebastes* species, measured in cm.

Fish State

Record the physical state of the fish at time of measurement. If you have measured fish that do not fit into either of the following codes, note the fish numbers of these fish, and contact the office immediately:

4 = dressed, gills and guts removed, gonads intact
20 = round, gills and belly intact.

Tag/Fish Number

While collecting rockfish biological data in Area 2B in 2007, record the fish number in this field. The sampled fish of each species will be numbered chronologically throughout the season, beginning at number one for each species. Every sampled fish must have a fish number, even if you are unable to collect all of the data on that fish.

Collection Type

Collection type describes the type of specimen collected during sampling. There are four valid codes in 2007, all of which pertain to otolith collection.

1 = both otoliths collected and stored in one cell in the otolith tray
2 = both otoliths collected and stored in two adjacent cells in the otolith tray
5 = one otolith lost; one otolith collected and stored in the otolith tray
6 = both otoliths lost

Sex

Record the sex of the fish. There are three acceptable codes:

M = Male
F = Female
U = Unidentified

Maturity

Consult the rockfish maturity guidelines and, to the best of your ability, assign a maturity to the sample. If you are unable to determine the maturity, use code U.

Table 4: Rockfish maturity guidelines

		Female		Male	
Maturity Code	*Maturity stage*	*Maturity sub-stage*	*Gonad Condition*	*Maturity sub-stage*	*Gonad Condition*
1	Immature	Immature	**small** translucent pink	*Immature*	**threadlike** translucent pink
2		Maturing	**small** yellow eggs no small black dots present (no reabsorbed larvae) translucent or opaque	Maturing	**string-like** slight swelling residual milt not present translucent
3	Mature	Developing eggs	**large** yellow or orange eggs a few small black dots may be present (reabsorbed larvae) **opaque**	Developing	**swelling** residual milt may be present in seminal vesicle brown-white
4		Fertilized eggs	**large** orange-yellow eggs **translucent**	Developed	**large** **easily broken** **white**
5		Embryos/larvae	large Embryos or larvae present; include eyed eggs translucent	Running	**running sperm**
6		Spent	large **flaccid** a few larvae may be present red ovaries	Spent	**sperm still in duct** white-brown
7		Resting	moderate size **firm** **orange-grey ovaries, some with dark blotches**	Resting	**small** **triangular in cross-section** **brown**
U	Unknown	Unknown	Unknown	Unknown	Unknown

Remember the following points while determining rockfish maturities:

- Mature rockfish cycle back to maturity stage **#3**, after the resting stage **#7**, for example: 1-2-3-4-5-6-7-3-4...
- Females- look for the presence of eyed larvae (small black dots on ovaries) to distinguish mature females (stage 3) from maturing females (stage 2) which do not have eyed larvae present.

- Males – look for the presence of residual milt in the seminal vesicle to distinguish developing testes (stage 3) from maturing testes (stage 2), which will not have residual milt present.

Comment

There are five comment codes that may be entered in this column. You can only enter one code in the comment code field. If you encounter a fish that has more than one comment code, see the priority rules below. You may enter additional comment codes in the Remarks section.

Comment Codes (arranged in order from highest to lowest priority)

I = Internal parasite present. Use this code to indicate that you observed evidence of the parasitic copepods *Sarcotaces spp.* in the gut cavity. According to *The Rockfishes of the Northeast Pacific* by Love, Yoklavich and Thorsteinson, adult *Sarcotaces* live in an internal cyst that is usually attached to the rectum, where it feeds off the blood of the host. The cyst often appears as a silver sac filled with black ink, that, when burst, emits a black fluid.

R = Tag recovery: it is unlikely you will recover a tagged rockfish in BC waters. If you find a tagged rockfish collect the LSMO data, record the tag number in the remarks field, and put the tag in a completed tag envelope.

C = Crystallized otoliths.

E = Eaten or bitten by dogfish, shark, whale, etc. Ignored healed bite wounds

S = Eaten by sand fleas.

Otolith collection

Collection:

Collect both otoliths from each fish, and place them together in one cell in the otolith tray. Make cuts for otolith extraction from the inside of the gill cavity to avoid damaging the outside of the fish. Cuts to the outside of the head can negatively affect the salability of the product. Collect crystallized otoliths and process them in the same manner as un-crystallized otoliths. Save and collect the pieces of broken otoliths. Rockfish otoliths do not need to be kept in glycerin, but should be stored clean and dry. Make sure to remove all blood and membranes from the otoliths and wipe them dry with a towel before storing them in the tray. Take time at the end of the day or while the vessel is setting the following morning to ensure the otoliths are completely clean.

Cell and tray numbering:

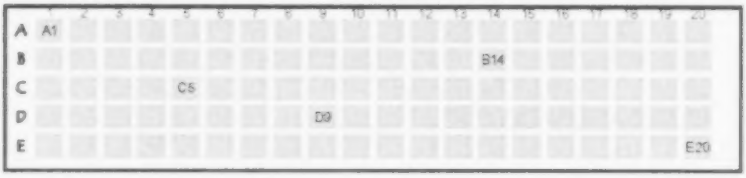
Otoliths will be stored in separate trays for each species. **Unlike halibut otoliths, the fish number for each sampled rockfish will not necessarily match the cell number of the tray used to store the otoliths for the fish.** DFO tray bien cells have no number associated with them - the otoliths simply occupy a space - A1, A2, A3 and so on.

DFO tray biens are white, and are labeled as follows:

- each row is labeled with a letter, from A to E
- the cells of each row are numbered from 1-20 from left to right.

The top left cell, which is the first cell to be filled, is cell A1 and the bottom right cell, which is the last cell in the tray to be filled, is cell E20. Refer to the labeling on the tray for the correct numbering system.

Figure 4: DFO Rockfish otolith trays



Lost otoliths:

If you lose one otolith, collect the remaining otolith and record code 5 (one otolith lost) in the Collection Type field. The single otolith will occupy the cell that corresponds to the fish number.

If you lose both otoliths collect the remaining data from the fish, give the fish the correct fish number, record code 6 (both otoliths lost) in the Collection Type field, and leave the corresponding otolith cell empty. Continue sequential numbering with the next fish, and ensure the next fish number matches the next cell in the otolith tray. Because trays will be filled sequentially and completely, the only empty cells in a tray will represent sampled fish with both otoliths lost.

Large otoliths:

If the otoliths are too large to fit in one cell, spread them across two cells. Record the LSMO data. Use code 2 (two otoliths split into two cells) in the Collection Type field. In the Remarks section record the cell coordinates for both of the otoliths. Use the next fish number for the next sampled fish, and put the otoliths from that fish in the next available cell. **Note that due to this protocol, rockfish fish numbers are not tied to the cell number in the otolith tray, as one fish number may occupy two cells.**

If an otolith is too large to fit into the cell, you may break a small portion off of the outside edge of the otolith so it will fit. Avoid making break near the center of the otolith.

Filling the trays:

At the end of the set, double check that you have the same number of otoliths in the tray as you have on the Set Form C, and that any fish with Collection type of 2 or 6 are represented in the tray by an empty cell or two single otoliths side by side.

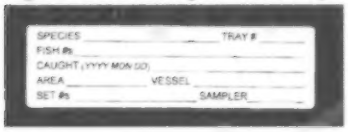
Do not skip cells between sets or trips: always start the next set and the next trip in the next available cell. Place a paper star in the first and last cell of each tray and at the beginning and end cells of each trip. Mark the paper star with the vessel code, trip number, and **fish number**.

Mailing:

Mail otoliths to Seattle after the boat has completed all charter regions in 2B for the season. If you do not have sufficient storage space on your vessel for the full trays you may mail completed trays to Seattle as needed. If you accidentally mail a tray of otoliths with unused cells midseason, start the next tray on the next cell number. Cell number should always match fish number.

For Example:
Trip two has ended with yelloweye fish number 332 in cell D4. The cases have been mailed back to the lab, so trip three will start with a new case. The first yelloweye fish number will be 333, and its otolith will be placed in cell D5.

Figure 5: DFO Rockfish otolith tray label



When an otolith tray is full, complete the waterproof labels DFO has affixed to the lid of the tray. Fill out the label as follows:

- SPECIES: the Latin name for the species
- TRAY #: leave blank until the cruise is over. After the final otolith has been collected for that species, label the trays as '1 of 3': '2 of 3'; and '3 of 3'.
- FISH NUMBER: the range of fish numbers in the tray.
- CAUGHT: range of dates caught, in the following format: YYYYmonDD
  (e.g. 2007Jun04 – 2007Jul17)
- AREA: list all DFO Areas in which these fish were caught (refer to maps in the Appendix 2 for this information)
- VESSEL: full name of the vessel

- SET NUMBERS: range of set numbers included in the tray
- SAMPLERS: full name of the lead sampler

Use rubber bands and tape to secure the lid of the tray, and vacuum seal the otoliths in the same manner you prepare halibut otoliths for mailing. Package rockfish otoliths separately from halibut otoliths. Clearly mark the outside of the package to indicate it contains rockfish otoliths.

Unidentified rockfish and unknown maturities:

If you are unable to confidently identify a rockfish to species or have problems classifying the maturity level of a sampled fish, please utilize the following resources to ensure the correct ID and maturities are assigned.

1. **Call or email a DFO representative for advice.**

   Lynne Yamanaka is the lead scientist on this project and the end-user of the data you are collecting. Telephone her from the vessel to discuss any problems you have with identifications or maturities.

   If you are unable to contact Lynne, call the DFO port samplers from Vancouver and Prince Rupert for assistance.

   DFO contact information:

Lynne Yamanaka (Project director)	office: 250-756-7211 cell: 250-714-9251 email: yamanakal@pac.dfo-mpo.gc.ca
Schon Acheson (Vancouver)	office: 604-666-2658 cell: 604-209-4184 email: AchesonSm@pac.dfo-mpo.gc.ca
Kristina Anderson (Prince Rupert)	office: 250-627-3475 email: AndersonKr@*pac.dfo-mpo.gc.ca*

2. **Save the specimen for later analysis**
   a. Label a freezer bag for the sample with the following information: "IPHC research", vessel name, date, set number, your name, fish number, and the species name or maturity code you have assigned the fish on the data sheet. A few bags and waterproof labels have been included with your gear.
   b. Record all label information in the logbook and outline the difficulties of the identification.
   c. Freeze the sample.

3. **Discuss the identification with the DFO or AMR port sampler at landing**

   If you are offloading in Prince Rupert of Vancouver, call the DFO port sampler to arrange a meeting with them at offload. At the dock you can discuss the species ID or rockfish maturity with them, and give them the frozen sample so they can pass it on to the DFO office for further examination if necessary.

   It is priority to give the specimen to a DFO sampler in Prince Rupert rather than an AMR port sampler. If you are offloading at other BC ports, you can ask the AMR port sampler for advice and give the frozen fish to them to store for DFO.

   Double-check the specimen is well-labeled before handing it off to the port sampler. Record the name of the port sampler and any other details of the discussion in the logbook offload summary notes for that delivery.

Data editing:

The total number of rockfish in your hook-by-hook tally should equal the total number of lines on the Set Form C, if you were able to sample all rockfish for that set.

End of Trip Summary:

Include the last fish number and its otolith cell coordinates for each sampled rockfish species in the End of Trip Summary in your logbook.

Logbooks:

There is no requirement for the IPHC sampler to fill out the vessel logbook, this is solely the responsibility of the charter vessel captain. Additionally, there is no need for the IPHC sampler to interact with the dockside monitors. This is also the responsibility of the captain. If you have time and would like to do so, you may assist the captain with these responsibilities by sharing bycatch information with him. IPHC surveys are cooperative ventures and we encourage all members of the team to work together to complete the charter.

Mailing data:

Store the Hook Tally and Set Form Cs with the halibut data forms for each set, and mail them for data entry as usual.

Evaluations:

As 2007 is the first year IPHC is collecting this data in area 2B, each sampler should fill out an evaluation of the project at the end of their time on the vessel, or at the end of the project, whichever occurs first. The evals are in the Admin pack. Mail completed evals with end of trip documentation.

Appendix 1: Hook Tally Codes

Round and Flat Fish			
IPHC Species Code	Common Name	Scientific Name	Hook Tally Code
2	Arrowtooth Flounder	Atheresthes stomias	A
12	Dover Sole	Microstomus pacificus	DS
171	Flatfish, unident.	Pleuronectiformes	UF
3	Flathead Sole	Hippoglossoides elassodon	FS
37	Giant Wrymouth	Delolepis gigantia	WE
148	Great Sculpin	Myoxocephalus polyacanthocephalus	GS
16	Greenland Turbot	Reinhardtius hippoglossoides	GT
23	Greenling, unident.	Hexagrammidae	G
42	Grenadier (Rattail), unident.	Macrouridae	RT
152	Kamchatka Flounder	Atheresthes evermanni	KF
21	Lingcod	Ophiodon elongatus	LC
26	Pacific Cod	Gadus macrocephalus	C
86	Pacific Hake	Merluccius productus	PH
1	Pacific Halibut	Hippoglossus stenolepis	H
14	Petrale Sole	Eopsetta jordani	P
145	Red Irish Lord	Hemilepidotus hemilepidotus	RL
4	Rock Sole, unident.	Lepidopsetta sp.	RS
34	Ronquil, unident.	Bathymasteridae	RQ
27	Sablefish (Blackcod)	Anoplopoma fimbria	BC
20	Salmon, unident.	Salmonidae	SA
29	Sculpin, unident.	Cottidae	SC
56	Spotted Ratfish	Hydrolagus colliei	RF
28	Walleye Pollock	Theragra chalcogramma	PO
146	Yellow Irish Lord	Hemilepidotus jordani	YL

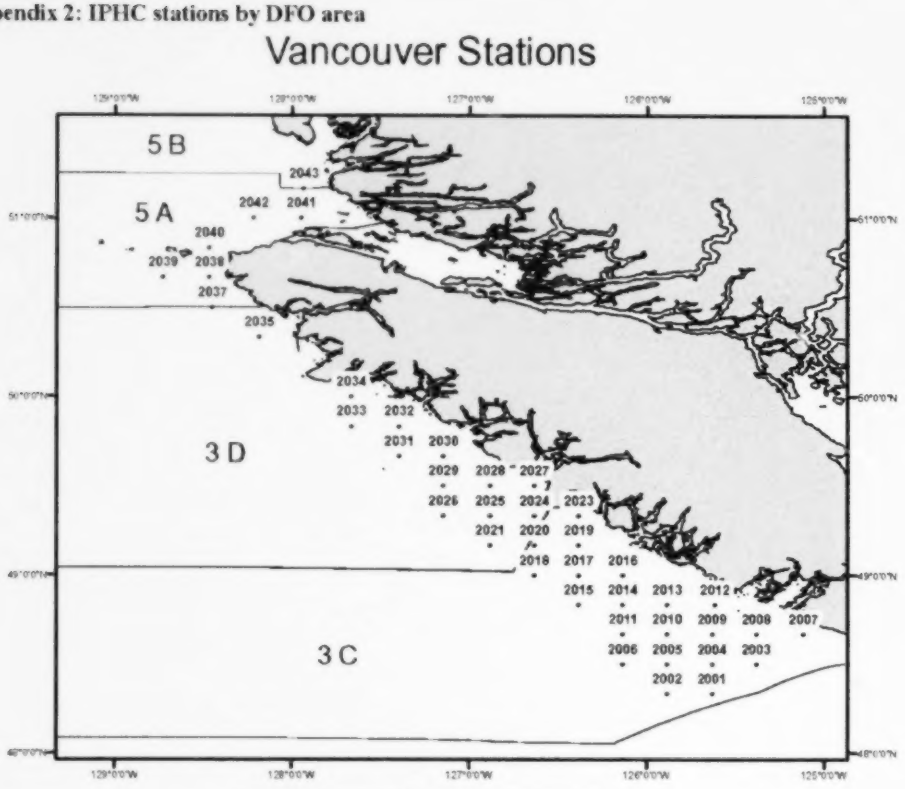
Rockfish			
IPHC Species Code	Common Name	Scientific Name	Hook Tally Code
127	Bocaccio	Sebastes paucispinis	BO
57	Canary Rockfish	Sebastes pinniger	CA
58	Dusky Rockfish	Sebastes ciliatus	DR
59	Northern Rockfish	Sebastes polyspinis	NR
87	Quillback Rockfish	Sebastes maliger	QB
90	Redbanded Rockfish	Sebastes babcocki	RB
45	Rockfish, unident	Sebastes spp	R
31	Rougheye Rockfish	Sebastes aleutianus	RE
401	Rougheye/Shortraker	(exact species unknown)	UR
119	Shortraker Rockfish	Sebastes borealis	SR
150	Shortspine Thornyhead (Idiot)	Sebastolobus alascanus	I
60	Silvergray Rockfish	Sebastes brevispinis	SG
30	Thornyhead, unident. (Idiot)	Sebastolobus spp	UI
89	Yelloweye Rockfish	Sebastes ruberrimus	YE
128	Yellowmouth Rockfish	Sebastes reedi	YM

Skates and Sharks			
IPHC Species Code	Common Name	Scientific Name	Hook Tally Code
137	Alaska Skate	Bathyraja parmifera	AK
138	Aleutian Skate	Bathyraja aleutica	AL
167	Bering Skate	Bathyraja interrupta	BE
141	Big Skate	Raja binoculata	BI
140	Black Skate	Bathyraja trachura	BS
126	Blue Shark	Prionace glauca	BL
169	Commander Skate	Bathyraja lindbergi	CK
168	Golden Skate	Bathyraja smirnovi	GO
143	Longnose Skate	Raja rhina	LN
142	Sandpaper Skate	Bathyraja kincaida	SD
63	Shark, unident	Elasmobranchii	SH
55	Skate, unident	Rajidae	SK
125	Sleeper Shark	Somniosus pacificus	SS
129	Soupfin Shark	Galeorhinus zyopterus	SF
54	Spiny Dogfish	Squalus acanthias	D
156	Whiteblotched Skate	Bathyraja maculata	W

Invertebrates			
IPHC Species Code	Common Name	Scientific Name	Hook Tally Code
211	Basketstar	Gorgonocephalus eucnemis	BK
106	Bryozoa, unident.	Bryozoa	BZ
95	Coral, unident.	(includes hard and soft)	CO
209	Fish-eating Star	Stylasterias Forren	FE
218	Glass Sponge, unident.	Hexactinellida	GL
51	Octopus, unident.	Octopoda	O
52	Scallop, unident.	Pectinid	US
93	Sea Anemone, unident.	Actiniana	AN
73	Sea Cucumber, unident.	Holothuroidea	CU
92	Sea Pen, unident.	Pennatulacea	SE
82	Sea Urchin, unident.	Echinoidea	SU
103	Shells, unident.	(includes bivalve and gastropods)	SL
91	Sponge, unident.	Porifera	SP
81	Starfish, unident.	(includes brittle and basketstars)	ST
210	Sunflower Sea Star	Pycnopodia helianthoides	SN

Other Codes	
IPHC Species Code	Common Name
296	Unidentified plant matter
100	Inanimate Object

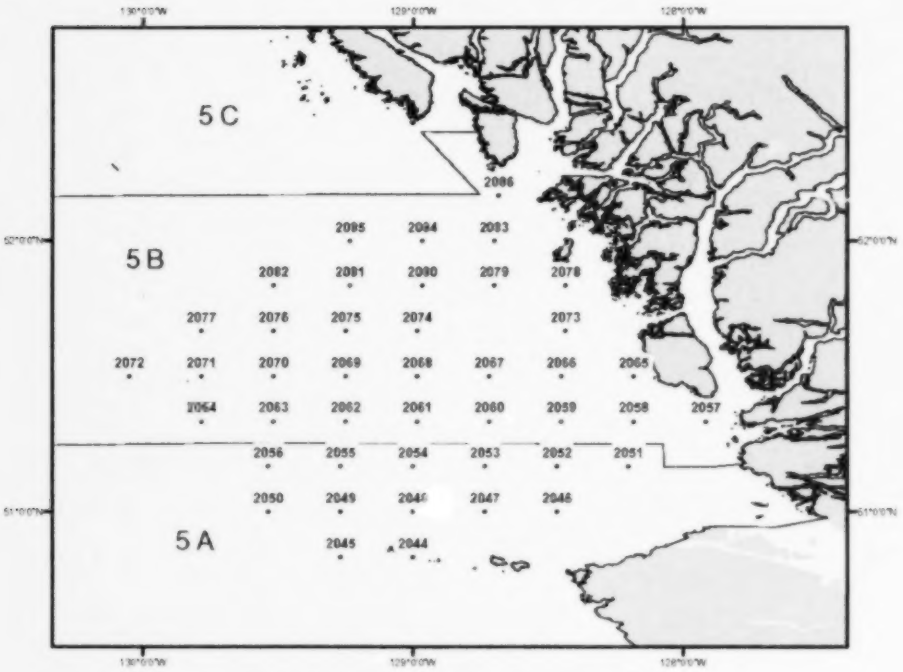
Appendix 2: IPHC stations by DFO area



IPHC Station Number	DFO Area
2001	3C
2002	3C
2003	3C
2004	3C
2005	3C
2006	3C
2007	3C
2008	3C
2009	3C
2010	3C
2011	3C
2012	3C
2013	3C
2014	3C
2015	3C
2016	3C
2017	3C
2018	3C
2019	3C
2020	3C
2021	3D

IPHC Station Number	DFO Area
2023	3C
2024	3D
2025	3D
2026	3D
2027	3D
2028	3D
2029	3D
2030	3D
2031	3D
2032	3D
2033	3D
2034	3D
2035	3D
2037	3D
2038	5A
2039	5A
2040	5A
2041	5A
2042	5A
2043	5B

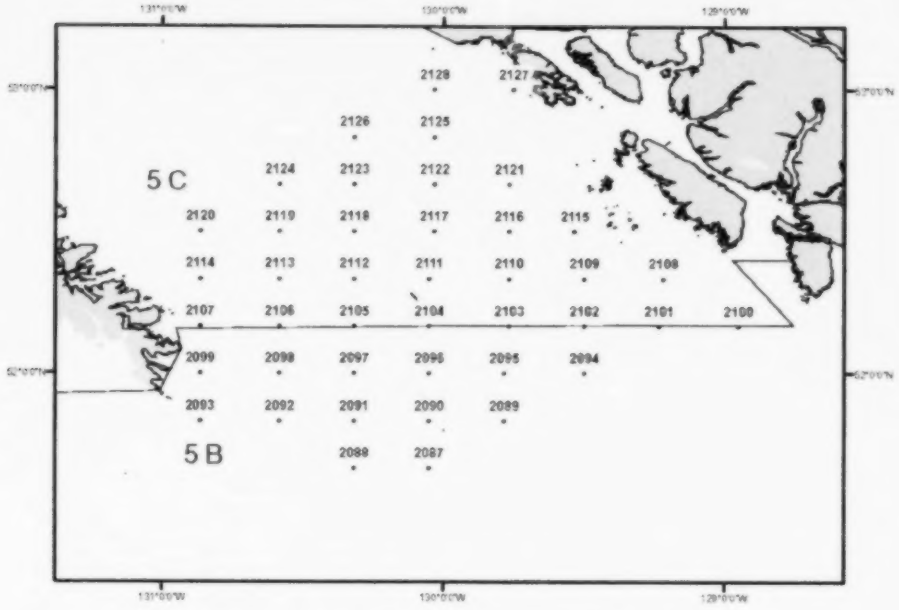
Goose Island Stations



IPHC Station Number	DFO Area
2044	5A
2045	5A
2046	5A
2047	5A
2048	5A
2049	5A
2050	5A
2051	5A
2052	5A
2053	5A
2054	5A
2055	5A
2056	5A
2057	5B
2058	5B
2059	5B
2060	5B
2061	5B
2062	5B
2063	5B
2064	5B
2065	5B

IPHC Station Number	DFO Area
2066	5B
2067	5B
2068	5B
2069	5B
2070	5B
2071	5B
2072	5B
2073	5B
2074	5B
2075	5B
2076	5B
2077	5B
2078	5B
2079	5B
2080	5B
2081	5B
2082	5B
2083	5B
2084	5B
2085	5B
2086	5B

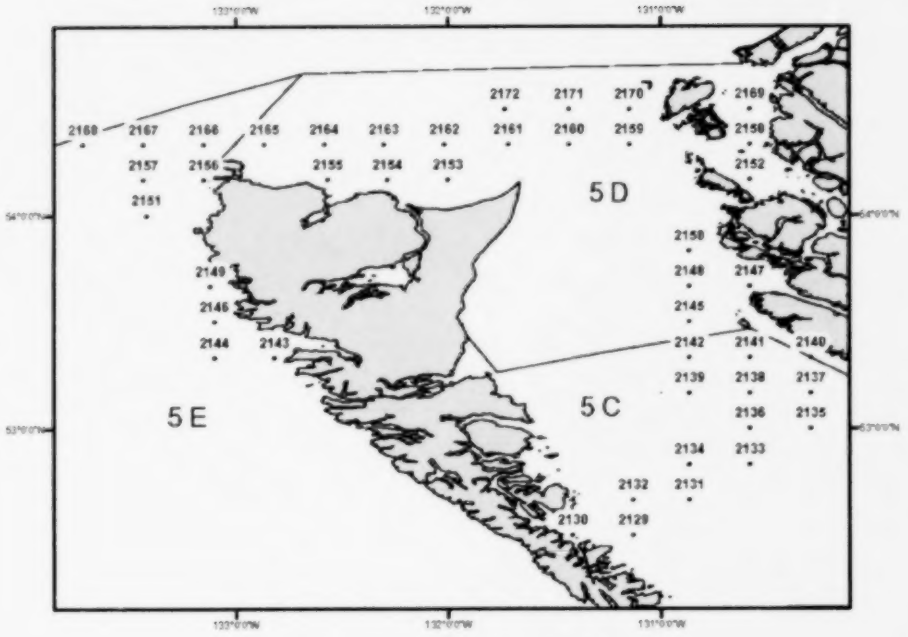
St. James Stations



IPHC Station Number	DFO Area
2087	5B
2088	5B
2089	5B
2090	5B
2091	5B
2092	5B
2093	5B
2094	5B
2095	5B
2096	5B
2097	5B
2098	5B
2099	5B
2100	5B
2101	5B
2102	5B
2103	5B
2104	5C
2105	5C
2106	5C
2107	5C

IPHC Station Number	DFO Area
2108	5C
2109	5C
2110	5C
2111	5C
2112	5C
2113	5C
2114	5C
2115	5C
2116	5C
2117	5C
2118	5C
2119	5C
2120	5C
2121	5C
2122	5C
2123	5C
2124	5C
2125	5C
2126	5C
2127	5C
2128	5C

Charlotte Stations



IPHC Station Number	DFO Area
2129	5C
2130	5C
2131	5C
2132	5C
2133	5C
2134	5C
2135	5C
2136	5C
2137	5C
2138	5C
2139	5C
2140	5D
2141	5C
2142	5C
2143	5E
2144	5E
2145	5D
2146	5E
2147	5D
2148	5D
2149	5E
2150	5D

IPHC Station Number	DFO Area
2151	5E
2152	5D
2153	5D
2154	5D
2155	5D
2156	5E
2157	5E
2158	5D
2159	5D
2160	5D
2161	5D
2162	5D
2163	5D
2164	5D
2165	5D
2166	5E
2167	5E
2168	5E
2169	5D
2170	5D
2171	5D
2172	5D

Appendix B. Summary of set specifications by vessel, including set number, date, location (start and end latitudes and longitudes in degrees, decimal minutes), depths (minimum, maximum and average in metres) and times (start deployment, start and end retrieval).

Pender Isle

Set	Date	Start Lat	Start Long	End Lat	End Long	Min Depth (m)	Max Depth (m)	Average Depth (m)	Begin Retrieve Time	End Retrieve Time
1	04-Jun-07	48 49.98	125 36.63	48 50.02	125 40.28	74	81	77	12:54 PM	2:28 PM
2	04-Jun-07	48 33.38	125 61.45	48 33.28	125 64.98	75	76	75	4:09 PM	5:29 PM
3	04-Jun-07	48 33.33	125 90.18	48 33.33	125 86.67	162	257	209	6:51 PM	8:28 PM
4	04-Jun-07	48 50	125 65.22	48 49.98	125 61.98	51	61	56	9:59 PM	11:50 PM
5	05-Jun-07	48 49.97	125 86.48	48 50	125 90.12	57	59	58	10:28 AM	11:50 AM
6	05-Jun-07	48 50.02	126 11.57	48 49.95	126 14.93	104	115	109	12:47 PM	2:26 PM
7	05-Jun-07	48 66.65	126 15.08	48 66.67	126 11.45	74	82	78	3:41 PM	5:01 PM
8	05-Jun-07	48 66.65	125 90.1	48 66.67	125 86.58	38	42	40	6:03 PM	7:27 PM
9	06-Jun-07	48 66.72	125 09.82	48 66.53	125 13.52	32	36	34	10:25 AM	11:43 AM
10	06-Jun-07	48 66.67	125 36.53	48 66.63	125 40.15	33	37	35	12:53 PM	2:05 PM
11	06-Jun-07	48 66.65	125 61.55	48 66.7	125 65.13	51	78	64	3:20 PM	4:48 PM
12	07-Jun-07	48 83.35	125 59.88	48 83.35	125 63.57	23	31	27	12:18 PM	1:32 PM
13	07-Jun-07	48 83.33	125 86.8	48 83.35	125 90.5	32	34	33	2:25 PM	4:05 PM
14	07-Jun-07	48 83.3	126 11.52	48 83.32	126 15.27	56	63	59	5:08 PM	6:20 PM
15	07-Jun-07	48 99.98	126 15.13	49 00.02	126 11 6	36	41	38	7:43 PM	9:05 PM
16	08-Jun-07	49 33.45	127 16.8	49 33.32	127 13.05	95	110	102	10:04 AM	11:21 AM
17	08-Jun-07	49 33.33	126 90.1	49 33.33	126 86.55	73	79	76	12:21 PM	1:34 PM
18	08-Jun-07	49 16.67	126 86.52	49 16.67	126 89.68	90	101	95	2:55 PM	4:10 PM
19	09-Jun-07	48 99.95	126 65.18	48 99.97	126 61.7	114	145	129	10:28 AM	12:05 PM
20	09-Jun-07	48 99.97	126 40.1	49 00.02	126 36.77	75	79	77	1:55 PM	3:17 PM
21	09-Jun-07	48 83.23	126 36.62	48 83.42	126 40.03	98	101	99	4:50 PM	6:24 PM
22	12-Jun-07	49 33.35	126 40.17	49 33.33	126 36.5	20	21	20	10:41 AM	11:59 AM
23	12-Jun-07	49 16.65	126 36.52	49 16.7	126 40.3	44	50	47	1:20 PM	2:39 PM
24	12-Jun-07	49 16.67	126 61.55	49 16.72	126 65.17	67	69	68	3:44 PM	4:50 PM
25	12-Jun-07	49 32.73	126 64.92	49 33.88	126 62.03	31	51	41	6:00 PM	7:25 PM
26	13-Jun-07	49 49.98	126 61.52	49 50.02	126 65.18	20	23	21	11:58 AM	1:09 PM
27	13-Jun-07	49 50	126 86.45	49 50.02	126 90.03	44	53	48	2:18 PM	3:39 PM
28	13-Jun-07	49 50.02	127 13.12	49 49.98	127 6.62	78	80	79	4:52 PM	6:04 PM
29	13-Jun-07	49 66.6	127 16.87	49 66.7	127 13.25	61	65	63	7:20 PM	8:38 PM
30	14-Jun-07	49 66.63	127 41.33	49 66.68	127 37.67	87	180	133	11:58 AM	1:19 PM
31	14-Jun-07	49 83.28	127 38.15	49 83.35	127 41.83	41	43	42	2:35 PM	3:57 PM
32	14-Jun-07	49 83.33	127 64.83	49 83.33	127 68.28	88	97	92	5:05 PM	6:29 PM
33	14-Jun-07	49 99.98	127 68.53	50 00.02	127 64.67	45	51	48	7:51 PM	9:11 PM
34	15-Jun-07	50 33.35	128 16.48	50 33.37	128 20.23	83	90	86	11:19 AM	12:45 PM
35	15-Jun-07	50 49.97	128 43.15	50 50.02	128 46.83	99	103	101	2:29 PM	3:55 PM
36	15-Jun-07	50 66.67	128 48.55	50 66.68	128 44.68	42	50	46	5:22 PM	6:38 PM
37	16-Jun-07	50 99.97	127 93.13	51 00.05	127 97.15	62	63	62	10:29 AM	11:57 AM
38	16-Jun-07	50 99.97	128 19.75	51 00.02	128 23.77	53	57	55	1:20 PM	2:37 PM
39	16-Jun-07	51 16.7	128 21.9	51 16.65	128 18.58	50	56	53	4:02 PM	5:31 PM
40	16-Jun-07	51 16.67	127 95.23	51 16.65	127 91.62	61	73	67	6:51 PM	8:05 PM
41	17-Jun-07	51 33.32	127 89.77	51 33.35	127 93.57	64	84	74	10:37 AM	11:58 AM
42	17-Jun-07	51 33.33	128 16.4	51 33.3	128 20.4	40	50	45	1:10 PM	2:23 PM

F/V Pender Isle set specifications continued on next page.

Appendix B continued.

Pender Isle

Set	Date	Start Lat	Start Long	End Lat	End Long	Min Depth (m)	Max Depth (m)	Average Depth (m)	Begin Retrieve Time	End Retrieve Time
43	17-Jun-07	51 33.37	128 43.08	51 33.3	128 47.12	79	85	82	3:29 PM	4:53 PM
44	20-Jun-07	51 50	128 16.43	51 49.98	128 20.1	39	51	45	12:15 PM	1:49 PM
45	20-Jun-07	51 49.97	128 43.1	51 50	128 46.77	103	105	104	2:58 PM	4:21 PM
46	20-Jun-07	51 66.83	128 45.3	51 66.62	128 41.65	78	79	78	5:38 PM	7:01 PM
47	20-Jun-07	51 83.25	128 41.42	51 83.18	128 45.17	42	93	67	8:18 PM	9:41 PM
48	21-Jun-07	52 16.72	128 70.2	52 16.68	128 66.35	106	129	117	11:58 AM	1:55 PM
49	21-Jun-07	52 00.02	128 68.05	51 99.97	128 71.63	90	91	90	3:16 PM	4:42 PM
50	21-Jun-07	52 00	128 94.82	52 00.02	128 98.63	63	82	72	5:49 PM	7:16 PM
51	21-Jun-07	52 00.05	129 21.43	51 99.97	129 25.17	96	99	97	8:18 PM	9:34 PM
52	22-Jun-07	51 66.65	129 80.22	51 66.68	129 76.67	136	157	146	12:04 PM	1:18 PM
53	22-Jun-07	51 66.62	129 53.58	51 66.67	129 49.68	51	59	55	2:41 PM	3:58 PM
54	22-Jun-07	51 83.18	129 53.53	51 83.45	129 49.77	137	145	141	5:08 PM	6:33 PM
55	22-Jun-07	51 83.3	129 25.22	51 83.37	129 21.2	67	68	67	7:50 PM	9:06 PM
56	23-Jun-07	51 83.27	128 68.03	51 83.33	128 71.63	45	70	57	12:38 PM	1:43 PM
57	23-Jun-07	51 83.33	128 94.73	51 83.32	128 98.35	43	50	46	2:45 PM	4:10 PM
58	23-Jun-07	51 66.6	128 96.35	51 66.72	128 99.97	25	31	28	5:37 PM	6:55 PM
59	23-Jun-07	51 66.57	129 23.02	51 66.75	129 26.75	31	33	32	8:03 PM	9:13 PM
60	24-Jun-07	51 50	129 00.22	51 49.95	128 96.3	24	25	24	10:31 AM	11:49 AM
61	24-Jun-07	51 49.97	128 73.23	51 49.97	128 69.43	32	66	49	12:56 PM	2:10 PM
62	24-Jun-07	51 33.3	128 69.82	51 33.43	128 73.52	112	116	114	3:21 PM	4:47 PM
63	24-Jun-07	51 33.37	128 96.52	51 33.3	129 00.25	133	137	135	5:53 PM	7:26 PM
64	25-Jun-07	51 00.02	128 73.62	50 99.93	128 70.22	36	37	36	10:08 AM	11:10 AM
65	25-Jun-07	51 16.65	128 75.25	51 16.67	128 71.6	53	54	53	12:39 PM	1:42 PM
66	25-Jun-07	51 16.68	128 48.53	51 16.67	128 44.68	105	106	105	2:47 PM	4:09 PM
67	25-Jun-07	50 99.97	128 44.72	51 00	128 48.25	50	54	52	5:46 PM	7:00 PM
68	28-Jun-07	50 82.67	128 45.12	50 83.92	128 48.28	24	40	32	11:47 AM	12:57 PM
69	28-Jun-07	50 66.62	128 71.58	50 66.7	128 75.15	100	108	104	2:38 PM	4:05 PM
70	28-Jun-07	50 83.3	128 98.07	50 83.35	129 01.52	46	50	48	5:52 PM	7:33 PM
71	29-Jun-07	51 00.03	128 98.13	50 99.92	129 02.07	43	46	44	10:50 AM	12:09 PM
72	29-Jun-07	51 00	129 24.83	50 99.97	129 28.8	85	89	87	1:26 PM	2:37 PM
73	29-Jun-07	51 16.58	129 28.5	51 16.7	129 25.08	139	153	146	3:55 PM	5:33 PM
74	29-Jun-07	51 16.6	128 98.1	51 16.75	129 01.98	72	74	73	6:58 PM	8:25 PM
75	30-Jun-07	51 50.2	129 23.08	51 49.8	129 27.05	25	27	26	10:39 AM	11:57 AM
76	30-Jun-07	51 33.35	129 23.15	51 33.33	129 26.92	126	131	128	1:27 PM	2:49 PM
77	30-Jun-07	51 33.3	129 49.78	51 33.4	129 53.55	110	113	111	4:09 PM	5:29 PM
78	30-Jun-07	51 49.97	129 53.5	51 50	129 49.88	51	60	55	7:04 PM	8:24 PM
79	01-Jul-07	51 50	129 76.5	51 49.97	129 80.47	91	95	93	11:08 AM	12:36 PM
80	01-Jul-07	51 50	130 02.97	51 50	130 06.73	142	200	171	1:54 PM	3:26 PM
81	01-Jul-07	51 33.5	129 80.18	51 33.15	129 76.32	129	133	131	5:27 PM	6:52 PM
82	02-Jul-07	50 83.48	129 24.83	50 83.13	129 28.53	60	72	66	11:31 AM	1:04 PM
83	02-Jul-07	51 00.02	129 51.47	50 99.98	129 55.08	124	136	130	2:43 PM	4:36 PM
84	02-Jul-07	51 16.52	129 55.15	51 16.8	129 51.38	152	152	152	5:54 PM	7:08 PM

Appendix B continued.

Proud Venture

Set	Date	Start Lat	Start Long	End Lat	End Long	Min Depth (m)	Max Depth (m)	Average Depth (m)	Begin Retrieve Time	End Retrieve Time
1	05-Jun-07	52 66.68	129 74.68	52 56.67	129 78.65	98	115	106	10:05 AM	11:46 AM
2	05-Jun-07	52 51.22	129 76.65	52 48.63	129 76.65	94	102	98	4:26 PM	5:50 PM
3	05-Jun-07	52 48.65	129 53.33	52 50.73	129 53.33	54	64	59	1:28 PM	3:11 PM
4	06-Jun-07	52 15.53	130 04.98	52 17.9	130 04.95	88	93	90	12:20 PM	1:40 PM
5	06-Jun-07	52 17.95	130 31.68	52 15.67	130 31.63	215	228	221	3:10 PM	4:37 PM
6	06-Jun-07	52 01.32	130 31.67	51 98.93	130 31.7	194	198	196	6:12 PM	7:33 PM
7	06-Jun-07	51 98.95	130 04.98	52 01.2	130 05	76	78	77	9:00 PM	10:00 PM
8	07-Jun-07	51 98.32	129 78.32	52 00.55	129 78.3	62	64	63	10:38 AM	12:04 PM
9	07-Jun-07	52 01.25	129 50.03	51 98.73	129 50	110	117	113	1:34 PM	3:02 PM
10	07-Jun-07	51 82.25	129 78.33	51 84.45	129 78.37	131	154	142	5:04 PM	6:32 PM
11	08-Jun-07	51 82.05	130 86.67	51 84.58	130 86.58	97	112	104	10:55 AM	1:52 PM
12	08-Jun-07	51 82.42	130 58.35	51 84.85	130 58.33	182	186	184	3:21 PM	4:26 PM
13	08-Jun-07	51 98.7	130 58.3	52 01.17	130 58.33	126	155	140	5:34 PM	7:00 PM
14	08-Jun-07	52 01.05	130 86.63	51 98.28	130 86.63	92	118	105	8:42 PM	9:47 PM
15	10-Jun-07	51 83.35	130 34.17	51 83.33	130 30.58	119	121	120	1:23 PM	2:52 PM
16	10-Jun-07	51 67.55	130 31.65	51 65.35	130 31.67	138	150	144	5:10 PM	6:42 PM
17	10-Jun-07	51 65.73	130 04.97	51 68.07	130 03.27	190	200	195	8:05 PM	10:08 PM
18	10-Jun-07	51 82.17	130 05.02	51 84.47	130 05.03	98	104	101	11:24 PM	1:38 AM
19	11-Jun-07	52 98.77	130 03.37	53 01.27	130 03.22	92	117	104	3:40 PM	4:58 PM
20	11-Jun-07	52 99.98	129 73.47	53 00.02	129 77.42	121	130	125	6:40 PM	8:02 PM
21	14-Jun-07	53 67.65	130 86.65	53 64.95	130 86.62	25	28	26	12:18 PM	1:35 PM
22	14-Jun-07	53 82.18	130 86.68	53 84.37	130 86.68	44	51	47	2:54 PM	4:13 PM
23	14-Jun-07	53 68.08	130 57.97	53 65.68	130 58.18	15	18	16	5:46 PM	7:11 PM
24	14-Jun-07	53 49.98	130 84.92	53 49.95	130 89.08	50	54	52	8:56 PM	9:59 PM
25	15-Jun-07	53 01.13	130 58.37	52 98.52	130 58.32	50	52	51	10:40 AM	11:44 AM
26	15-Jun-07	52 84.47	130 58.33	52 81.87	130 58.35	61	65	63	1:40 PM	2:42 PM
27	15-Jun-07	52 84.28	130 86.68	52 81.72	130 86.68	25	29	27	4:05 PM	5:17 PM
28	16-Jun-07	52 65.57	131 13.27	52 67.7	131 13.35	38	44	41	1:20 PM	2:30 PM
29	16-Jun-07	52 67.78	130 86.68	52 65.22	130 86.68	50	54	52	4:01 PM	5:06 PM
30	16-Jun-07	52 48.97	131 13.32	52 51.23	131 13.33	38	75	56	7:09 PM	8:43 PM
31	16-Jun-07	52 50	131 39.65	52 49.98	131 43.68	50	83	66	10:04 PM	11:10 PM
32	17-Jun-07	52 50.97	130 86.65	52 48.42	130 86.62	59	62	60	12:26 PM	1:50 PM
33	17-Jun-07	52 51.15	130 58.33	52 48.57	130 58.32	64	67	65	3:18 PM	4:24 PM
34	17-Jun-07	52 67.8	130 58.33	52 65.2	130 58.32	78	90	84	5:36 PM	6:58 PM
35	18-Jun-07	52 67.87	130 31.65	52 65.48	130 31.67	125	125	125	11:06 AM	12:57 PM
36	18-Jun-07	52 65.5	130 03.32	52 67.8	130 03.3	146	150	148	2:18 PM	3:33 PM
37	18-Jun-07	52 82.05	130 03.32	52 84.25	130 03.38	140	141	140	4:42 PM	6:05 PM
38	18-Jun-07	52 84.48	130 31.67	52 81.9	130 31.67	115	115	115	7:31 PM	8:37 PM
39	19-Jun-07	54 13.82	130 58.35	54 16.35	130 58.3	43	67	55	2:37 PM	3:50 PM
40	19-Jun-07	54 32.07	130 58.3	54 34.63	130 58.37	44	66	55	5:12 PM	6:14 PM
41	19-Jun-07	54 48.83	130 58.33	54 51.28	130 58.33	55	73	64	7:15 PM	8:29 PM
42	22-Jun-07	54 16.83	132 30.38	54 16.67	132 26.17	48	52	50	11:54 AM	12:53 PM
43	22-Jun-07	54 33.33	132 28.28	54 33.33	132 32.5	115	119	117	2:18 PM	3:36 PM

F/V Proud Venture set specifications continued on next page.

Appendix B continued.

Proud Venture

Set	Date	Start Lat	Start Long	End Lat	End Long	Min Depth (m)	Max Depth (m)	Average Depth (m)	Begin Retrieve Time	End Retrieve Time
44	22-Jun-07	54 33.43	132 56.42	54 33.33	132 60.65	142	151	146	5:05 PM	6:23 PM
45	22-Jun-07	54 16.67	132 55.03	54 16.67	132 59.25	47	48	47	7:49 PM	8:54 PM
46	23-Jun-07	54 15.52	133 43.35	54 17.93	133 43.33	215	216	215	1:38 PM	2:52 PM
47	23-Jun-07	54 32.3	133 43.3	54 34.72	133 43.3	117	126	121	4:02 PM	5:24 PM
48	23-Jun-07	54 34.38	133 71.68	54 31.9	133 71.68	135	137	136	6:43 PM	7:59 PM
49	23-Jun-07	54 01	133 41.63	53 98.6	133 41.67	39	45	42	10:47 PM	12:06 AM
50	24-Jun-07	53 68.18	133 11.65	53 65.8	133 11.67	77	82	79	9:22 PM	10:30 PM
51	24-Jun-07	53 51.25	133 10.03	53 48.95	133 10.02	160	210	185	11:38 AM	1:17 PM
52	24-Jun-07	53 34.5	133 10.03	53 31.98	133 10.02	119	145	132	2:34 PM	3:50 PM
53	24-Jun-07	53 34.07	132 81.73	53 31.57	132 81.7	75	79	77	5:17 PM	6:25 PM
54	25-Jun-07	54 15.28	133 15.05	54 17.82	133 14.82	29	40	34	10:48 AM	11:54 AM
55	25-Jun-07	54 33.3	133 18.8	54 33.35	133 14.73	254	255	254	1:15 PM	2:40 PM
56	25-Jun-07	54 33.32	132 88.8	54 33.35	132 84.58	209	225	217	4:20 PM	5:50 PM
57	26-Jun-07	54 16.7	131 98.15	54 16.65	132 02.4	39	42	40	6:35 PM	7:25 PM
58	26-Jun-07	54 33.35	131 99.65	54 33.3	132 04.82	134	138	136	8:49 PM	9:56 PM
59	27-Jun-07	54 33.33	131 69.73	54 33.33	131 74.22	99	108	103	11:47 AM	12:52 PM
60	27-Jun-07	54 50.02	131 71.72	54 50	131 75.93	175	185	180	2:25 PM	3:56 PM
61	27-Jun-07	54 50	131 45.45	54 50.02	131 41.08	68	79	73	5:20 PM	6:34 PM
62	28-Jun-07	54 48.92	131 15.1	54 51.42	131 14.95	73	81	77	11:10 AM	12:11 PM
63	28-Jun-07	54 33.4	131 45.53	54 33.43	131 41.13	92	98	95	2:02 PM	3:06 PM
64	28-Jun-07	54 33.33	131 17.25	54 33.32	131 12.8	34	41	37	4:41 PM	5:40 PM
65	02-Jul-07	53 34.67	130 58.35	53 32.1	130 58.33	37	52	44	11:52 AM	12:51 PM
66	02-Jul-07	53 34.57	130 86.73	53 32.02	130 86.67	72	78	75	2:16 PM	3:23 PM
67	02-Jul-07	53 17.85	130 86.68	53 15.23	130 86.67	56	58	57	4:40 PM	5:41 PM
68	02-Jul-07	53 15.55	130 58.37	53 18.05	130 58.35	98	107	102	7:08 PM	8:12 PM
69	03-Jul-07	52 34.55	129 21.68	52 32.07	129 21.67	79	85	82	3:15 PM	4:44 PM
70	03-Jul-07	52 15.43	129 23.35	52 17.87	129 23.35	94	95	94	6:25 PM	7:41 PM
71	03-Jul-07	5215.48	128 95.05	52 18.05	128 94.98	87	93	90	9:09 PM	10:18 PM
72	04-Jul-07	52 34.43	129 50	52 31.92	129 50	94	102	98	11:40 AM	12:54 PM
73	04-Jul-07	52 17.83	129 50.05	52 15.27	129 50	112	117	114	2:13 PM	3:26 PM
74	04-Jul-07	52 17.77	129 76.68	52 15.23	129 76.7	106	116	111	4:57 PM	6:06 PM
75	04-Jul-07	52 32.13	129 76.7	52 34.53	129 76.65	114	116	115	7:18 PM	8:48 PM
76	05-Jul-07	52 32.27	130 05	52 34.72	130 05	120	134	127	11:45 AM	1:21 PM
77	05-Jul-07	52 48.88	130 03.33	52 51.27	130 03.33	147	150	148	2:36 PM	3:56 PM
78	05-Jul-07	52 48.98	130 31.72	52 51.37	130 31.68	130	145	137	5:28 PM	6:52 PM
79	05-Jul-07	52 34.52	130 31.67	52 32.07	130 31.67	189	197	193	8:14 PM	9:40 PM
80	06-Jul-07	52 15.55	130 58.33	52 18.15	130 58.33	105	107	106	11:11 AM	12:54 PM
81	06-Jul-07	52 15.52	130 86.67	52 17.63	130 86.68	122	124	123	2:20 PM	3:41 PM
82	06-Jul-07	52 32.17	130 86.68	52 34.42	130 86.67	78	82	80	5:03 PM	6:13 PM
83	06-Jul-07	52 34.52	130 58.33	52 31.98	130 58.33	90	94	92	7:42 PM	9:03 PM
84	07-Jul-07	52 98.83	130 30.02	53 01.4	130 30	116	117	116	10:49 AM	12:18 PM
85	07-Jul-07	53 15.62	130 30	53 18	130 30	60	112	86	1:34 PM	3:04 PM
86	07-Jul-07	53 34.47	130 30.07	53 31.97	130 30	54	65	59	4:24 PM	5:43 PM

Appendix C. Species counts and catch rates (CPUE) (number of fish per effective skate) by year (1995-2007) and common IPHC station (see Figure 2) for redbanded rockfish (RB), yelloweye rockfish (YE), rougheye rockfish (RE), quillback rockfish (QB), silvergray rockfish (SG), canary rockfish (CN), copper rockfish (CP), and bocaccio (BC).

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
1995	10G	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	10GC	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	10L	5C/D	4.919	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	10LC	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	11E	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	11H	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	11HC	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	11J	5C/D	4.919	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	12CC	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	12E	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	12H	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	13D	5C/D	4.768	23.00	4.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	13F	5C/D	4.718	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	13FC	5C/D	4.969	0.00	0.00	8.00	1.61	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	14A	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	14AC	5C/D	4.869	47.00	9.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	14C	5C/D	4.718	39.00	8.27	2.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	14E	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	15C	5C/D	5.019	1.00	0.20	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	15J	5E	5.019	0.00	0.00	8.00	1.59	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	15JC	5E	5.019	0.00	0.00	41.00	8.17	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	15L	5E	4.919	0.00	0.00	102.00	20.74	0.00	0.00	0.00	0.00	4.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00
1995	16A	5C/D	4.919	0.00	0.00	3.00	0.61	0.00	0.00	3.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	16AC	5C/D	4.919	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	16H	5E	5.019	0.00	0.00	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	17C	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	18G	5E	4.969	0.00	0.00	169.00	34.01	0.00	0.00	11.00	2.21	3.00	0.60	1.00	0.20	0.00	0.00	0.00	0.00
1995	19C	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	19K	5C/D	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	19N	5C/D	5.119	0.00	0.00	23.00	4.49	0.00	0.00	14.00	2.74	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
1995	19P	5E	5.019	0.00	0.00	22.00	4.38	0.00	0.00	12.00	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	19PC	5E	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	19R	5E	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	1A	3C/D, 5A	4.969	69.00	13.89	0.00	0.00	31.00	6.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	20C	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	20CC	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	20E	5C/D	5.069	40.00	7.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	20H	5C/D	5.019	22.00	4.38	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	20K	5C/D	4.969	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	20KC	5C/D	4.015	2.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	20M	5C/D	5.842	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	2C	3C/D, 5A	4.869	0.00	0.00	61.00	12.53	0.00	0.00	1.00	0.21	6.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00
1995	3B	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	3BC	3C/D, 5A	4.969	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	3D	3C/D, 5A	5.069	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	3G	3C/D, 5A	4.969	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	3J	3C/D, 5A	4.969	18.00	3.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00
1995	3JC	3C/D, 5A	4.969	8.00	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	3K	3C/D, 5A	4.969	68.00	13.69	7.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	4C	3C/D, 5A	4.969	0.00	0.00	22.00	4.43	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	4F	3C/D, 5A	5.069	10.00	1.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	4FC	3C/D, 5A	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	4H	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	4K	3C/D, 5A	5.069	6.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	5CC	5B	4.969	14.00	2.82	0.00	0.00	5.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	5E	5B	5.019	52.00	10.36	0.00	0.00	4.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	5H	5B	4.969	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	5KC	5B	5.019	28.00	5.58	26.00	5.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	6B	5B	4.919	18.00	3.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	6E	5B	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	6F	5B	5.019	0.00	0.00	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	7C	5B	5.019	1.00	0.20	1.00	0.20	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
1995	7F	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	7FC	5B	5.019	23.00	4.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	7H	5B	5.019	22.00	4.38	0.00	0.00	6.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	7K	5B	4.919	39.00	7.93	83.00	16.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	7N	5B	4.969	26.00	5.23	0.00	0.00	67.00	13.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	7NC	5B	4.869	3.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
1995	8AC	5B	5.019	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	8C	5B	5.069	30.00	5.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	8F	5B	5.019	30.00	5.98	25.00	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	8I	5B	5.019	0.00	0.00	131.00	26.10	0.00	0.00	0.00	0.00	6.00	1.20	3.00	0.60	0.00	0.00	0.00	0.00
1995	8IC	5B	4.969	0.00	0.00	88.00	17.71	0.00	0.00	0.00	0.00	5.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00
1995	8K	5B	5.069	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	9E	5C/D	5.019	16.00	3.19	18.00	3.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	9G	5C/D	4.919	109.00	22.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	9J	5C/D	4.869	0.00	0.00	55.00	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	9M	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1995	9O	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10211	3C/D, 5A	4.939	4.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10212	5B	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10213	5B	4.939	0.00	0.00	3.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10214	5B	4.939	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10215	5B	4.939	39.00	7.90	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10216	5B	4.939	22.00	4.45	14.00	2.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10218	5B	4.939	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10220	5B	4.939	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10221	5B	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10222	5B	4.939	41.00	8.30	30.00	6.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20
1996	10223	5B	4.939	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10224	5B	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00
1996	10225	5B	4.939	13.00	2.63	0.00	0.00	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10226	5B	4.939	0.00	0.00	78.00	15.79	0.00	0.00	0.00	0.00	0.00	0.00	6.00	1.22	0.00	0.00	0.00	0.00
1996	10227	5B	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10228	5B	4.999	0.00	0.00	50.00	10.00	0.00	0.00	0.00	0.00	7.00	1.40	1.00	0.20	0.00	0.00	0.00	0.00
1996	10229	5B	4.999	31.00	6.20	75.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10230	5B	4.818	18.00	3.74	0.00	0.00	15.00	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10232	5C/D	4.939	2.00	0.41	3.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10233	5C/D	4.939	6.00	1.22	9.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10234	5C/D	4.939	29.00	5.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	10235	5C/D	4.939	35.00	7.09	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
1996	10236	5C/D	4.939	0.00	0.00	26.00	5.26	0.00	0.00	0.00	0.00	1.00	0.20	1.00	0.20	0.00	0.00	0.00	0.00
1996	11211	5B	4.818	1.00	0.21	0.00	0.00	1.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11212	5B	4.818	7.00	1.45	2.00	0.42	9.00	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11213	5B	4.015	77.00	19.18	11.00	2.74	20.00	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.25
1996	11215	5C/D	4.939	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.41	0.00	0.00	0.00	0.00
1996	11216	5C/D	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
1996	11217	5C/D	4.939	13.00	2.63	29.00	5.87	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.41	0.00	0.00	0.00	0.00
1996	11218	5C/D	4.939	10.00	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11219	5C/D	4.939	25.00	5.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11221	5C/D	4.939	19.00	3.85	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
1996	11222	5C/D	4.939	46.00	9.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11223	5C/D	4.939	73.00	14.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11224	5C/D	4.939	0.00	0.00	14.00	2.84	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11225	5C/D	4.939	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00
1996	11226	5C/D	4.939	34.00	6.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11227	5C/D	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11231	5C/D	4.939	0.00	0.00	55.00	11.14	0.00	0.00	5.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11232	5C/D	4.939	28.00	5.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11233	5C/D	4.939	8.00	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	11234	5C/D	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	12112	5C/D	4.939	22.00	4.45	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	12113	5C/D	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	12114	5C/D	4.939	0.00	0.00	7.00	1.42	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	12120	5C/D	4.939	0.00	0.00	12.00	2.43	0.00	0.00	22.00	4.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	12122	5C/D	4.939	0.00	0.00	5.00	1.01	0.00	0.00	10.00	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	12123	5C/D	4.939	18.00	3.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	12128	5C/D	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13011	5E	4.939	22.00	4.45	3.00	0.61	42.00	8.50	0.00	0.00	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
1996	13012	5E	4.939	3.00	0.61	65.00	13.16	0.00	0.00	0.00	0.00	7.00	1.42	0.00	0.00	0.00	0.00	6.00	1.22
1996	13013	5E	4.939	0.00	0.00	10.00	2.03	0.00	0.00	1.00	0.20	1.00	0.20	0.00	0.00	0.00	0.00	1.00	0.20
1996	13014	5E	4.939	1.00	0.20	117.00	23.69	0.00	0.00	0.00	0.00	7.00	1.42	0.00	0.00	0.00	0.00	1.00	0.20
1996	13015	5E	4.939	0.00	0.00	61.00	12.35	0.00	0.00	12.00	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13019	5E	4.939	0.00	0.00	28.00	5.67	0.00	0.00	13.00	2.63	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00
1996	13111	5E	4.939	3.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13112	5E	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13113	5E	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13115	5E	5.019	2.00	0.40	0.00	0.00	143.00	28.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13211	5C/D	4.939	46.00	9.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13212	5C/D	4.939	4.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
1996	13214	5C/D	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
1996	13215	5C/D	4.939	9.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13216	5C/D	4.939	6.00	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13217	5C/D	4.939	0.00	0.00	3.00	0.61	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20
1996	13314	5C/D	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13315	5C/D	4.939	20.00	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	13316	5C/D	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	14211	5C/D	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9012	3C/D, 5A	4.939	0.00	0.00	46.00	9.31	0.00	0.00	6.00	1.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9014	3C/D, 5A	4.939	19.00	3.85	0.00	0.00	49.00	9.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20
1996	9015	3C/D, 5A	4.939	9.00	1.82	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9016	3C/D, 5A	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9017	3C/D, 5A	4.939	35.00	7.09	2.00	0.41	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
1996	9111	3C/D, 5A	4.939	0.00	0.00	22.00	4.45	0.00	0.00	3.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9112	3C/D, 5A	4.939	3.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9113	3C/D, 5A	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9114	3C/D, 5A	4.939	0.00	0.00	2.00	0.41	0.00	0.00	1.00	0.20	0.00	0.00	1.00	0.20	0.00	0.00	1.00	0.20
1996	9115	3C/D, 5A	4.939	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9116	3C/D, 5A	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9117	3C/D, 5A	4.939	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9118	3C/D, 5A	4.939	0.00	0.00	12.00	2.43	0.00	0.00	3.00	0.61	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00
1996	9119	5B	4.939	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9120	5B	4.939	10.00	2.03	0.00	0.00	4.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9122	5B	4.939	9.00	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1996	9123	5B	4.939	11.00	2.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10211	3C/D, 5A	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10212	5B	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10213	5B	4.999	0.00	0.00	4.18	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10214	5B	4.999	0.00	0.00	33.20	6.64	0.00	0.00	8.30	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10215	5B	4.999	20.75	4.15	149.40	29.89	0.00	0.00	0.00	0.00	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00
1997	10216	5B	4.999	20.75	4.15	45.65	9.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10217	5B	4.999	29.05	5.81	66.40	13.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10218	5B	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10219	5B	4.999	4.15	0.83	12.45	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10220	5B	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10221	5B	4.999	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10222	5B	4.999	136.95	27.40	37.35	7.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10223	5B	4.999	8.30	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10224	5B	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10225	5B	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10226	5B	4.999	0.00	0.00	37.35	7.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10227	5B	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10228	5B	4.999	0.00	0.00	62.25	12.45	0.00	0.00	0.00	0.00	0.00	0.00	4.15	0.83	0.00	0.00	0.00	0.00
1997	10229	5B	4.999	24.90	4.98	70.55	14.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10230	5B	4.999	12.45	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10231	5C/D	4.999	0.00	0.00	78.85	15.77	0.00	0.00	41.50	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10232	5C/D	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10233	5C/D	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10234	5C/D	4.999	95.45	19.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10235	5C/D	4.999	53.95	10.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	10236	5C/D	4.999	0.00	0.00	53.95	10.79	0.00	0.00	0.00	0.00	0.00	0.00	4.15	0.83	0.00	0.00	0.00	0.00
1997	10237	5B	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11211	5B	4.999	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11212	5B	4.999	0.00	0.00	0.00	0.00	8.30	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11213	5B	4.999	136.95	27.40	4.15	0.83	16.60	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11214	5C/D	4.999	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11215	5C/D	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11216	5C/D	4.999	0.00	0.00	16.60	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11217	5C/D	4.999	4.15	0.83	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11218	5C/D	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11219	5C/D	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11221	5C/D	5.059	8.40	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11222	5C/D	4.939	16.40	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11223	5C/D	5.059	34.17	6.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11224	5C/D	4.999	0.00	0.00	8.23	1.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11225	5C/D	5.119	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11226	5C/D	4.939	0.00	0.00	4.10	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11227	5C/D	5.059	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11231	5C/D	4.939	0.00	0.00	57.40	11.62	0.00	0.00	0.00	0.00	0.00	0.00	4.10	0.83	0.00	0.00	0.00	0.00
1997	11232	5C/D	5.059	8.40	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11233	5C/D	5.059	12.60	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	11234	5C/D	5.059	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	12112	5C/D	5.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	12113	5C/D	5.059	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
1997	12114	5C/D	5.119	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	12120	5C/D	5.119	0.00	0.00	0.00	0.00	0.00	0.00	4.25	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	12121	5C/D	5.119	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	12122	5C/D	5.18	0.00	0.00	0.00	0.00	0.00	0.00	8.60	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	12123	5C/D	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13011	5E	4.939	0.00	0.00	0.00	0.00	22.99	4.66	0.00	0.00	9.20	1.86	0.00	0.00	0.00	0.00	0.00	0.00
1997	13012	5E	5.059	0.00	0.00	54.60	10.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13013	5E	4.939	0.00	0.00	4.92	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13014	5E	4.939	0.00	0.00	49.20	9.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13015	5E	5.059	0.00	0.00	21.00	4.15	0.00	0.00	8.40	1.66	0.00	0.00	4.20	0.83	0.00	0.00	0.00	0.00
1997	13019	5E	4.999	0.00	0.00	8.30	1.66	0.00	0.00	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13111	5E	4.999	0.00	0.00	0.00	0.00	12.45	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13112	5E	5.059	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13113	5E	5.059	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13115	5E	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13212	5C/D	4.939	4.10	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13213	5C/D	4.879	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13214	5C/D	5.059	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13215	5C/D	5.119	17.00	3.32	4.25	0.83	8.50	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13216	5C/D	5.059	4.20	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13217	5C/D	4.939	0.00	0.00	4.10	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13314	5C/D	5.059	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13315	5C/D	4.999	12.45	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13316	5C/D	5.059	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	13318	5C/D	4.879	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	14211	5C/D	5.119	0.00	0.00	0.00	0.00	29.75	5.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9012	3C/D, 5A	4.999	0.00	0.00	20.75	4.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9014	3C/D, 5A	4.999	24.90	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9015	3C/D, 5A	4.999	16.60	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9016	3C/D, 5A	4.999	12.45	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9017	3C/D, 5A	4.999	74.70	14.94	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9111	3C/D, 5A	4.999	0.00	0.00	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9112	3C/D, 5A	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9113	3C/D, 5A	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9114	3C/D, 5A	4.999	0.00	0.00	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9115	3C/D, 5A	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9116	3C/D, 5A	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9117	3C/D, 5A	4.999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9118	3C/D, 5A	4.999	0.00	0.00	8.30	1.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9119	5B	4.999	16.60	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9120	5B	4.999	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9121	5B	4.999	0.00	0.00	29.05	5.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1997	9122	5B	4.999	20.75	4.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2044	3C/D, 5A	4.999	0.00	0.00	53.95	10.79	0.00	0.00	4.15	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2046	3C/D, 5A	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2047	3C/D, 5A	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2049	3C/D, 5A	6.665	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2050	3C/D, 5A	6.665	33.20	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2051	3C/D, 5A	6.665	0.00	0.00	24.90	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2053	3C/D, 5A	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2054	3C/D, 5A	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2056	3C/D, 5A	6.665	8.30	1.25	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2059	5B	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2060	5B	6.665	16.60	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2062	5B	6.665	20.75	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2064	5B	6.665	24.75	3.71	8.25	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2066	5B	6.665	41.50	6.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2069	5B	6.665	0.00	0.00	4.02	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2071	5B	6.665	0.00	0.00	49.80	7.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2073	5B	6.665	8.30	1.25	8.30	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2074	5B	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2075	5B	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2077	5B	6.665	8.30	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2079	5B	6.665	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2081	5B	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2082	5B	6.665	8.30	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2083	5B	6.665	70.55	10.59	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2084	5B	6.665	0.00	0.00	16.60	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2085	5B	6.665	53.95	8.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2090	5B	6.505	4.05	0.62	40.50	6.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2093	5B	6.424	40.00	6.23	260.00	40.47	0.00	0.00	0.00	0.00	20.00	3.11	0.00	0.00	0.00	0.00	0.00	0.00
1998	2095	5B	6.665	0.00	0.00	20.75	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2096	5B	6.424	4.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
1998	2098	5B	6.424	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2101	5B	6.585	16.40	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2102	5B	6.635	195.05	29.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2104	5B	6.424	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2106	5B	6.505	12.15	1.87	12.15	1.87	0.00	0.00	0.00	0.00	4.00	0.62	4.00	0.62	0.00	0.00	0.00	0.00
1998	2107	5B	6.585	4.10	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2110	5C/D	6.505	64.80	9.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2111	5C/D	6.665	45.37	6.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2113	5C/D	6.585	0.00	0.00	12.30	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2122	5C/D	6.344	15.80	2.49	0.00	0.00	3.95	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2124	5C/D	6.665	12.45	1.87	12.45	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2125	5C/D	6.665	20.75	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2133	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2135	5C/D	6.585	20.50	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2136	5C/D	6.505	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2137	5C/D	6.585	20.50	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2138	5C/D	6.585	49.20	7.47	8.20	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2139	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2142	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2143	5E	6.264	0.00	0.00	23.40	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2145	5C/D	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.90	0.62	0.00	0.00	0.00	0.00
1998	2146	5E	6.424	36.00	5.60	0.00	0.00	24.00	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2147	5C/D	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2148	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.12	0.62	0.00	0.00
1998	2149	5E	6.342	0.00	0.00	65.81	10.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2150	5C/D	5.762	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2151	5E	6.585	0.00	0.00	52.97	8.04	0.00	0.00	16.30	2.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2153	5C/D	6.505	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2155	5C/D	6.505	0.00	0.00	24.30	3.74	0.00	0.00	12.15	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2156	5E	6.505	0.00	0.00	9.26	1.42	0.00	0.00	18.51	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2157	5E	6.505	4.05	0.62	0.00	0.00	8.10	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2159	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2160	5C/D	6.505	40.50	6.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2162	5C/D	6.585	45.10	6.85	0.00	0.00	4.10	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2164	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2165	5C/D	6.665	0.00	0.00	0.00	0.00	12.45	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2167	5E	6.585	24.60	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1998	2168	5E	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.10	0.62	0.00	0.00	0.00	0.00	0.00	0.00
1998	2171	5C/D	6.585	4.10	0.62	24.60	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2039	3C/D, 5A	6.665	24.90	3.74	12.45	1.87	0.00	0.00	0.00	0.00	4.10	0.62	0.00	0.00	0.00	0.00	0.00	0.00
1999	2041	3C/D, 5A	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00
1999	2042	3C/D, 5A	6.665	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.30	1.25
1999	2044	3C/D, 5A	6.585	0.00	0.00	41.00	6.23	0.00	0.00	8.20	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2046	3C/D, 5A	6.665	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2047	3C/D, 5A	6.746	0.00	0.00	8.40	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2049	3C/D, 5A	6.665	29.05	4.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2050	3C/D, 5A	6.746	100.80	14.94	37.80	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2051	3C/D, 5A	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2053	3C/D, 5A	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2054	3C/D, 5A	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2056	3C/D, 5A	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2059	5B	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2060	5B	6.665	8.30	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2062	5B	6.665	12.45	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2064	5B	6.665	16.60	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2066	5B	6.665	20.75	3.11	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2069	5B	6.665	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2071	5B	6.665	20.75	3.11	124.50	18.68	0.00	0.00	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00
1999	2073	5B	6.665	37.35	5.60	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2074	5B	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2075	5B	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2077	5B	6.665	8.30	1.25	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2079	5B	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2081	5B	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2082	5B	6.665	24.90	3.74	0.00	0.00	12.45	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2083	5B	6.665	91.30	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2084	5B	6.665	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2085	5B	6.665	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2090	5B	6.665	20.75	3.11	70.55	10.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2092	5B	6.665	33.20	4.98	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2093	5B	6.665	66.40	9.96	145.25	21.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2095	5B	6.665	0.00	0.00	53.95	8.09	0.00	0.00	0.00	0.00	0.00	0.00	4.15	0.62	0.00	0.00	8.30	1.25
1999	2096	5B	6.665	0.00	0.00	4.74	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
1999	2097	5B	6.748	0.00	0.00	0.00	0.00	12.60	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2098	5B	6.665	8.30	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2101	5C/D	6.665	24.90	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2102	5B	6.746	50.40	7.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2104	5B	6.665	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15	0.62
1999	2106	5B	6.746	4.20	0.62	8.40	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2107	5B	6.665	12.45	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15	0.62
1999	2109	5C/D	6.585	69.70	10.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2110	5C/D	6.746	180.60	26.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2111	5C/D	6.746	33.60	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2113	5C/D	6.665	37.35	5.60	74.70	11.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15	0.62
1999	2122	5C/D	6.746	79.80	11.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2124	5C/D	6.665	0.00	0.00	41.50	6.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2125	5C/D	6.665	62.25	9.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2131	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2133	5C/D	6.505	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2135	5C/D	6.505	60.75	9.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2136	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2137	5C/D	6.665	0.00	0.00	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2138	5C/D	6.585	24.60	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2139	5C/D	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2142	5C/D	6.665	4.15	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2143	5E	6.505	0.00	0.00	36.45	5.60	0.00	0.00	0.00	0.00	4.05	0.62	0.00	0.00	0.00	0.00	0.00	0.00
1999	2145	5C/D	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2146	5E	6.665	33.20	4.98	0.00	0.00	107.90	16.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2147	5C/D	6.505	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2148	5C/D	6.505	0.00	0.00	0.00	0.00	0.00	0.00	4.05	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2149	5E	6.585	0.00	0.00	106.60	16.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2150	5C/D	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2151	5E	6.585	0.00	0.00	53.30	8.09	0.00	0.00	8.20	1.25	0.00	0.00	8.20	1.25	0.00	0.00	0.00	0.00
1999	2153	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2154	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2155	5C/D	6.665	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2156	5E	5.832	0.00	0.00	14.53	2.49	0.00	0.00	32.68	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2157	5E	6.505	0.00	0.00	0.00	0.00	76.95	11.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2159	5C/D	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2160	5C/D	6.505	32.40	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2162	5C/D	6.505	4.05	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2164	5C/D	6.585	20.50	3.11	0.00	0.00	24.60	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2165	5C/D	6.585	0.00	0.00	0.00	0.00	12.30	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2167	5E	6.585	36.90	5.60	4.10	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1999	2168	5E	6.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2044	3C/D, 5A	7.027	0.00	0.00	85.00	12.10	0.00	0.00	10.00	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2046	3C/D, 5A	6.956	0.00	0.00	9.90	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2047	3C/D, 5A	6.956	0.00	0.00	9.90	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2049	3C/D, 5A	7.027	30.00	4.27	15.00	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.71
2000	2050	3C/D, 5A	6.956	55.24	7.94	40.17	5.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2051	3C/D, 5A	6.956	0.00	0.00	54.45	7.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2053	3C/D, 5A	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2054	3C/D, 5A	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2056	3C/D, 5A	6.956	4.95	0.71	0.00	0.00	4.95	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2059	5B	6.956	19.80	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2060	5B	7.027	35.00	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2062	5B	6.956	9.90	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2064	5B	7.027	20.00	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2066	5B	6.956	19.94	2.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2069	5B	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2071	5B	7.027	0.00	0.00	125.00	17.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.71
2000	2073	5B	7.027	14.89	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2074	5B	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2075	5B	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2077	5B	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2079	5B	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2081	5B	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2082	5B	7.027	5.00	0.71	0.00	0.00	10.00	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2083	5B	6.956	183.15	26.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2084	5B	6.956	0.00	0.00	10.34	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2085	5B	6.956	19.80	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2090	5B	7.027	45.00	6.40	75.00	10.67	0.00	0.00	0.00	0.00	5.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00
2000	2092	5B	1.988	0.00	0.00	0.00	0.00	6.60	3.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2093	5B	6.726	86.14	12.81	143.57	21.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2095	5B	6.956	0.00	0.00	29.70	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2096	5B	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
2000	2098	5B	6.956	4.95	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2101	5C/D	7.027	65.00	9.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2102	5C/D	7.027	129.08	18.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2104	5B	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2106	5B	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2107	5B	7.027	10.00	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2109	5C/D	6.956	44.55	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2110	5C/D	6.956	204.41	29.38	9.97	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2111	5C/D	6.956	19.80	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2113	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2122	5C/D	7.027	0.00	0.00	0.00	0.00	5.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2124	5C/D	6.956	0.00	0.00	54.45	7.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2125	5C/D	6.956	39.32	5.65	0.00	0.00	4.91	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2131	5C/D	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2133	5C/D	6.956	0.00	0.00	36.20	5.20	0.00	0.00	5.17	0.74	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.71
2000	2135	5C/D	6.525	27.86	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.17	0.74
2000	2136	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2137	5C/D	6.956	14.85	2.14	4.95	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2138	5C/D	6.956	54.84	7.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2139	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2142	5C/D	6.956	29.70	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2143	5E	6.525	0.00	0.00	22.57	3.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2145	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2146	5E	6.956	0.00	0.00	0.00	0.00	74.25	10.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2147	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2148	5C/D	6.886	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2149	5E	6.956	0.00	0.00	84.15	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2150	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2151	5E	6.886	0.00	0.00	58.80	8.54	0.00	0.00	44.10	6.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2153	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2154	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2155	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	4.95	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2156	5E	6.956	0.00	0.00	19.80	2.85	0.00	0.00	29.70	4.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2157	5E	6.956	0.00	0.00	0.00	0.00	84.15	12.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2159	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2160	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2162	5C/D	6.956	24.75	3.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2164	5C/D	6.956	14.85	2.14	0.00	0.00	4.95	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2165	5C/D	6.956	0.00	0.00	0.00	0.00	15.07	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	2167	5E	6.956	49.50	7.12	24.75	3.56	0.00	0.00	0.00	0.00	14.85	2.14	0.00	0.00	0.00	0.00	0.00	0.00
2000	2168	5E	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2039	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2041	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2042	3C/D, 5A	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2044	3C/D, 5A	5.069	0.00	0.00	25.25	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2046	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2047	3C/D, 5A	5.069	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2049	3C/D, 5A	5.019	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2050	3C/D, 5A	5.019	25.00	4.98	10.00	1.99	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2051	3C/D, 5A	5.019	0.00	0.00	10.64	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2053	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2054	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2056	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2059	5B	5.019	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2060	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2062	5B	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2064	5B	5.019	20.20	4.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2066	5B	5.069	10.10	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2069	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2071	5B	5.069	0.00	0.00	95.95	18.93	0.00	0.00	0.00	0.00	10.10	1.99	0.00	0.00	0.00	0.00	0.00	0.00
2001	2073	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2074	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2075	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2077	5B	5.019	20.00	3.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2079	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00
2001	2081	5B	5.069	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.05	1.00	0.00	0.00	0.00	0.00
2001	2082	5B	5.019	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2083	5B	5.019	30.00	5.98	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2084	5B	5.069	0.00	0.00	20.20	3.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2085	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2090	5B	5.019	10.00	1.99	110.00	21.92	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	5.00	1.00
2001	2092	5B	5.019	15.00	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2093	5B	5.069	35.35	6.97	75.75	14.94	0.00	0.00	0.00	0.00	10.10	1.99	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
2001	2095	5B	4.969	0.00	0.00	29.70	5.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2096	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2098	5B	5.069	10.10	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2101	5C/D	5.019	30.00	5.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2102	5B	5.069	55.55	10.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2104	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2106	5B	5.019	5.00	1.00	25.00	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2107	5B	5.019	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2109	5C/D	5.019	10.00	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2110	5C/D	5.019	155.00	30.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2111	5C/D	5.019	35.00	6.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2113	5C/D	5.019	40.00	7.97	45.00	8.97	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2122	5C/D	5.019	25.00	4.98	0.00	0.00	15.00	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2124	5C/D	5.019	0.00	0.00	30.00	5.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2125	5C/D	5.069	25.25	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2131	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2133	5C/D	5.019	0.00	0.00	29.41	5.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2135	5C/D	4.969	64.35	12.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2136	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2137	5C/D	4.969	29.12	5.86	9.71	1.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2138	5C/D	5.019	15.15	3.02	15.15	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2139	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2142	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2143	5E	5.019	0.00	0.00	19.61	3.91	0.00	0.00	0.00	0.00	19.61	3.91	0.00	0.00	0.00	0.00	0.00	0.00
2001	2145	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2146	5E	5.019	10.00	1.99	0.00	0.00	160.00	31.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2147	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2148	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2149	5E	4.969	0.00	0.00	70.00	14.09	0.00	0.00	0.00	0.00	5.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00
2001	2150	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2151	5E	4.969	0.00	0.00	79.20	15.94	0.00	0.00	19.80	3.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2153	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2154	5C/D	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2155	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2156	5E	4.969	0.00	0.00	4.96	1.00	0.00	0.00	9.90	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2157	5E	4.969	0.00	0.00	0.00	0.00	9.80	1.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2159	5C/D	4.919	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2160	5C/D	5.019	40.00	7.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2162	5C/D	4.919	14.70	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2164	5C/D	4.969	45.46	9.15	0.00	0.00	15.15	3.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2165	5C/D	4.969	0.00	0.00	0.00	0.00	59.40	11.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2001	2167	5E	5.019	121.21	24.15	50.51	10.06	0.00	0.00	0.00	0.00	15.15	3.02	0.00	0.00	0.00	0.00	10.10	2.01
2001	2168	5E	4.969	4.85	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2039	3C/D, 5A	4.969	0.00	0.00	4.96	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2041	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2042	3C/D, 5A	4.969	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2044	3C/D, 5A	5.019	0.00	0.00	25.77	5.14	0.00	0.00	5.15	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2046	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2047	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2049	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2050	3C/D, 5A	5.019	60.00	11.95	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2051	3C/D, 5A	5.019	0.00	0.00	10.00	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2053	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2054	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2056	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2059	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2060	5B	5.019	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2062	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2064	5B	5.069	5.05	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2066	5B	4.969	4.71	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2069	5B	5.069	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2071	5B	5.019	0.00	0.00	35.00	6.97	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2073	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2074	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2075	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2077	5B	5.019	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2079	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2081	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2082	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2083	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2084	5B	5.069	0.00	0.00	15.15	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2085	5B	5.019	10.00	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2090	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
2002	2092	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2093	5B	5.019	10.00	1.99	105.00	20.92	0.00	0.00	0.00	0.00	20.00	3.99	0.00	0.00	0.00	0.00	5.00	1.00
2002	2095	5B	5.019	0.00	0.00	25.00	4.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2096	5B	5.069	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2098	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2101	5C/D	5.019	44.55	8.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2102	5C/D	5.019	80.00	15.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2104	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2106	5B	5.069	0.00	0.00	5.05	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2107	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2109	5C/D	5.069	10.10	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2110	5C/D	5.019	15.00	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2111	5C/D	5.069	10.10	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2113	5C/D	4.969	0.00	0.00	19.80	3.99	0.00	0.00	0.00	0.00	0.00	0.00	4.95	1.00	0.00	0.00	0.00	0.00
2002	2122	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2124	5C/D	5.019	0.00	0.00	20.00	3.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2125	5C/D	5.019	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2131	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2133	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2135	5C/D	5.019	60.61	12.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2136	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2137	5C/D	5.019	10.00	1.99	15.00	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2138	5C/D	5.019	20.00	3.99	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2139	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2142	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2143	5E	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.21	1.04	15.63	3.11	0.00	0.00	0.00	0.00
2002	2145	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2146	5E	5.019	5.00	1.00	0.00	0.00	45.00	8.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2147	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2148	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2149	5E	5.019	0.00	0.00	15.00	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2150	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2151	5E	5.019	0.00	0.00	30.00	5.98	0.00	0.00	10.00	1.99	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2153	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2154	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2155	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2156	5E	5.019	0.00	0.00	10.00	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2157	5E	5.019	0.00	0.00	0.00	0.00	35.00	6.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2159	5C/D	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2160	5C/D	4.969	4.95	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2162	5C/D	5.019	5.05	1.01	0.00	0.00	5.05	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2164	5C/D	5.019	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2165	5C/D	5.019	0.00	0.00	0.00	0.00	10.00	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2167	5E	5.019	85.00	16.94	20.00	3.99	0.00	0.00	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
2002	2168	5E	5.069	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2039	3C/D, 5A	7.95	9.00	1.13	7.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2041	3C/D, 5A	8.031	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2042	3C/D, 5A	8.031	0.00	0.00	7.00	0.87	0.00	0.00	2.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2044	3C/D, 5A	8.111	0.00	0.00	46.00	5.67	0.00	0.00	10.00	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2046	3C/D, 5A	8.031	0.00	0.00	2.00	0.25	0.00	0.00	2.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2047	3C/D, 5A	8.031	0.00	0.00	4.00	0.50	0.00	0.00	12.00	1.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2049	3C/D, 5A	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2050	3C/D, 5A	8.111	10.00	1.23	1.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2051	3C/D, 5A	8.031	0.00	0.00	9.00	1.12	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2053	3C/D, 5A	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2054	3C/D, 5A	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2056	3C/D, 5A	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2060	5B	8.031	1.00	0.13	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2062	5B	8.031	2.00	0.25	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2066	5B	8.031	3.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2069	5B	8.031	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2071	5B	8.031	8.00	1.00	58.00	7.22	0.00	0.00	0.00	0.00	5.00	0.62	1.00	0.13	0.00	0.00	0.00	0.00
2003	2073	5B	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2074	5B	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2075	5B	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2077	5B	8.031	14.00	1.74	5.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2079	5B	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2081	5B	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2082	5B	8.031	12.00	1.49	0.00	0.00	2.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2083	5B	8.031	16.00	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2084	5B	8.031	0.00	0.00	3.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2085	5B	8.111	1.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2090	5B	8.031	7.00	0.87	52.00	6.48	0.00	0.00	1.00	0.13	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
2003	2092	5B	8.031	2.00	0.25	0.00	0.00	13.00	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2093	5B	7.95	48.00	6.04	183.00	23.02	0.00	0.00	0.00	0.00	10.00	1.26	0.00	0.00	0.00	0.00	3.00	0.38
2003	2095	5B	8.031	0.00	0.00	41.00	5.11	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
2003	2096	5B	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2098	5B	7.95	5.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2101	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2102	5B	7.95	2.00	0.25	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2104	5B	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2106	5B	7.95	13.00	1.64	7.00	0.88	0.00	0.00	0.00	0.00	2.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
2003	2107	5B	8.031	8.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2108	5C/D	8.031	29.00	3.61	2.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2110	5C/D	7.87	228.00	28.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2111	5C/D	7.95	33.00	4.15	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
2003	2113	5C/D	7.95	0.00	0.00	6.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2122	5C/D	8.031	18.00	2.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2124	5C/D	8.031	1.00	0.13	17.00	2.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2125	5C/D	8.031	50.00	6.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2131	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2133	5C/D	8.031	0.00	0.00	20.00	2.49	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00
2003	2135	5C/D	7.95	66.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2136	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2137	5C/D	7.95	16.00	2.01	6.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2138	5C/D	8.031	16.00	1.99	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2139	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2142	5C/D	7.95	8.00	1.01	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2143	5E	8.031	0.00	0.00	13.00	1.62	0.00	0.00	0.00	0.00	12.00	1.49	1.00	0.13	0.00	0.00	3.00	0.37
2003	2145	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2146	5E	8.031	44.00	5.48	0.00	0.00	89.00	11.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2147	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2148	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2149	5E	8.031	0.00	0.00	34.00	4.23	0.00	0.00	0.00	0.00	3.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00
2003	2150	5C/D	8.031	2.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2151	5E	8.031	0.00	0.00	35.00	4.36	0.00	0.00	11.00	1.37	6.00	0.75	7.00	0.87	0.00	0.00	1.00	0.13
2003	2153	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2154	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2155	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2156	5E	7.95	0.00	0.00	10.00	1.26	0.00	0.00	9.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2157	5E	7.95	0.00	0.00	0.00	0.00	56.00	7.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2159	5C/D	7.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2160	5C/D	7.95	10.00	1.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2162	5C/D	8.031	9.00	1.12	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2164	5C/D	7.95	15.00	1.89	0.00	0.00	21.00	2.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2165	5C/D	8.031	0.00	0.00	0.00	0.00	4.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	2167	5E	8.031	103.00	12.83	93.00	11.58	1.00	0.13	0.00	0.00	6.00	0.75	0.00	0.00	0.00	0.00	2.00	0.25
2003	2168	5E	7.95	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	1.00	0.13
2003	2170	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2039	3C/D, 5A	8.031	7.00	0.87	7.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2041	3C/D, 5A	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2042	3C/D, 5A	8.031	0.00	0.00	14.00	1.74	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2044	3C/D, 5A	8.031	0.00	0.00	72.00	8.97	0.00	0.00	6.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2046	3C/D, 5A	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2047	3C/D, 5A	8.031	0.00	0.00	1.00	0.13	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2049	3C/D, 5A	7.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00
2004	2050	3C/D, 5A	7.95	64.00	8.05	15.00	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2051	3C/D, 5A	7.95	0.00	0.00	5.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2053	3C/D, 5A	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2054	3C/D, 5A	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
2004	2056	3C/D, 5A	7.95	6.00	0.76	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2059	5B	7.95	29.00	3.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2060	5B	8.031	28.00	3.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2062	5B	8.031	29.00	3.61	0.00	0.00	21.00	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2064	5B	8.031	12.00	1.49	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2066	5B	8.031	25.00	3.11	0.00	0.00	3.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2069	5B	8.031	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2071	5B	8.031	7.00	0.87	135.00	16.81	0.00	0.00	0.00	0.00	2.00	0.25	1.00	0.13	0.00	0.00	1.00	0.13
2004	2073	5B	8.031	4.00	0.50	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2074	5B	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2075	5B	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2077	5B	8.031	9.00	1.12	11.00	1.37	11.00	1.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2079	5B	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2081	5B	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2082	5B	8.031	34.00	4.23	0.00	0.00	28.00	3.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2083	5B	7.95	20.00	2.52	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
2004	2084	5B	8.031	0.00	0.00	13.00	1.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2085	5B	8.031	22.00	2.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2090	5B	8.031	27.00	3.36	69.00	8.59	0.00	0.00	0.00	0.00	4.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00
2004	2093	5B	8.031	17.00	2.12	72.00	8.97	0.00	0.00	0.00	0.00	5.00	0.62	3.00	0.37	0.00	0.00	1.00	0.13
2004	2095	5B	8.031	0.00	0.00	41.00	5.11	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
2004	2096	5B	8.111	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2098	5B	8.031	11.00	1.37	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
2004	2101	5C/D	8.031	7.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2102	5B	8.031	65.00	8.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2104	5B	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2106	5B	8.031	7.00	0.87	10.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13
2004	2107	5B	8.031	5.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2109	5C/D	7.95	28.00	3.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2110	5C/D	7.95	67.00	8.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2111	5C/D	8.031	48.00	5.98	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
2004	2113	5C/D	8.031	7.00	0.87	35.00	4.36	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
2004	2122	5C/D	8.031	8.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
2004	2124	5C/D	8.031	0.00	0.00	56.00	6.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2125	5C/D	8.031	19.00	2.37	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2131	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2133	5C/D	8.031	0.00	0.00	7.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13
2004	2135	5C/D	8.031	85.00	10.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2136	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2137	5C/D	8.031	10.00	1.2[illegible]	25.00	3.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2138	5C/D	8.031	15.00	1.8.	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2139	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2142	5C/D	7.95	2.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2143	5E	8.031	0.00	0.00	13.00	1.62	0.00	0.00	2.00	0.25	7.00	0.87	1.00	0.13	0.00	0.00	4.00	0.50
2004	2145	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2146	5E	8.031	31.00	3.86	0.00	0.00	109.00	13.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2147	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2148	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.37	0.00	0.00
2004	2149	5E	8.031	0.00	0.00	67.00	8.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.25	0.00	0.00
2004	2150	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.37	1.00	0.13	0.00	0.00	2.00	0.25
2004	2151	5E	7.95	0.00	0.00	27.00	3.40	0.00	0.00	17.00	2.14	6.00	0.76	5.00	0.63	0.00	0.00	0.00	0.00
2004	2153	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2154	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2155	5C/D	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2156	5E	8.031	0.00	0.00	20.00	2.49	0.00	0.00	30.00	3.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2157	5E	8.031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.13	0.00	0.00	0.00	0.00
2004	2159	5C/D	7.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2160	5C/D	8.031	3.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2162	5C/D	7.95	15.00	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2164	5C/D	8.031	25.00	3.11	0.00	0.00	31.00	3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2165	5C/D	8.031	0.00	0.00	0.00	0.00	41.00	5.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2004	2167	5E	8.031	174.00	21.67	61.00	7.60	0.00	0.00	0.00	0.00	13.00	1.62	0.00	0.00	1.00	0.13	1.00	0.13
2004	2168	5E	8.111	7.00	0.86	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00
2005	2039	3C/D, 5A	7.027	20.00	2.85	10.00	1.42	0.00	0.00	0.00	0.00	1.00	0.14	2.00	0.29	0.00	0.00	0.00	0.00
2005	2041	3C/D, 5A	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2042	3C/D, 5A	7.027	0.00	0.00	5.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2044	3C/D, 5A	7.097	0.00	0.00	29.00	4.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2046	3C/D, 5A	7.027	0.00	0.00	10.00	1.42	0.00	0.00	2.00	0.29	0.00	0.00	4.00	0.57	0.00	0.00	0.00	0.00
2005	2047	3C/D, 5A	7.027	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2049	3C/D, 5A	7.027	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2050	3C/D, 5A	7.027	48.00	6.83	21.00	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2051	3C/D, 5A	7.027	0.00	0.00	29.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	3.00	0.43
2005	2053	3C/D, 5A	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00
2005	2054	3C/D, 5A	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2056	3C/D, 5A	7.027	3.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2059	5B	7.027	5.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2060	5B	7.027	28.00	3.99	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
2005	2062	5B	7.027	12.00	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2064	5B	7.027	10.00	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2066	5B	7.027	15.00	2.14	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2069	5B	7.027	0.00	0.00	11.00	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2071	5B	7.027	6.00	0.85	83.00	11.81	0.00	0.00	0.00	0.00	6.00	0.85	0.00	0.00	0.00	0.00	0.00	0.00
2005	2073	5B	7.027	11.00	1.57	4.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2074	5B	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2075	5B	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2077	5B	7.027	7.00	1.00	0.00	0.00	2.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2079	5B	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2081	5B	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2082	5B	7.027	21.00	2.99	0.00	0.00	4.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
2005	2083	5B	7.027	24.00	3.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2084	5B	7.027	0.00	0.00	4.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2085	5B	7.027	8.00	1.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2090	5B	6.886	3.00	0.44	37.00	5.37	0.00	0.00	0.00	0.00	3.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00
2005	2092	5B	6.956	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
2005	2093	5B	6.559	27.00	4.12	88.00	13.42	0.00	0.00	0.00	0.00	5.00	0.76	0.00	0.00	0.00	0.00	1.00	0.15
2005	2095	5B	6.956	0.00	0.00	28.00	4.03	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00
2005	2096	5B	6.956	0.00	0.00	3.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.29	0.00	0.00	0.00	0.00
2005	2098	5B	6.956	2.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
2005	2101	5C/D	6.956	13.00	1.87	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00
2005	2102	5B	6.956	63.00	9.06	2.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2104	5B	7.027	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.43	0.00	0.00	0.00	0.00
2005	2106	5B	7.027	41.00	5.84	9.00	1.28	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
2005	2107	5C/D	7.027	2.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2109	5C/D	7.027	16.00	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14
2005	2110	5C/D	7.027	92.00	13.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2111	5C/D	7.027	7.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
2005	2113	5C/D	6.956	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
2005	2122	5C/D	6.956	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2124	5C/D	6.956	0.00	0.00	24.00	3.45	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00
2005	2125	5C/D	6.956	58.00	8.34	0.00	0.00	2.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2131	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2133	5C/D	6.956	0.00	0.00	2.00	0.29	0.00	0.00	0.00	0.00	1.00	0.14	2.00	0.29	0.00	0.00	0.00	0.00
2005	2135	5C/D	7.027	55.00	7.83	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00
2005	2136	5C/D	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2137	5C/D	7.027	23.00	3.27	16.00	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2138	5C/D	7.027	42.00	5.98	2.00	0.29	0.00	0.00	0.00	0.00	1.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00
2005	2139	5C/D	6.956	0.00	0.00	2.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2142	5C/D	7.027	5.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2143	5E	7.027	0.00	0.00	4.00	0.57	0.00	0.00	0.00	0.00	10.00	1.42	0.00	0.00	0.00	0.00	1.00	0.14
2005	2145	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2146	5E	7.027	36.00	5.12	0.00	0.00	132.00	18.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2147	5C/D	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2148	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2149	5E	7.027	0.00	0.00	37.00	5.27	0.00	0.00	0.00	0.00	4.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00
2005	2150	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2151	5E	7.027	0.00	0.00	13.00	1.85	1.00	0.14	16.00	2.28	5.00	0.71	13.00	1.85	0.00	0.00	0.00	0.00
2005	2153	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2154	5C/D	6.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2155	5C/D	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2156	5E	7.027	0.00	0.00	11.00	1.57	0.00	0.00	18.00	2.56	2.00	0.29	4.00	0.57	0.00	0.00	0.00	0.00
2005	2157	5E	7.027	0.00	0.00	0.00	0.00	128.00	18.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2159	5C/D	7.027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2160	5C/D	7.027	13.00	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2162	5C/D	6.956	6.00	0.86	1.00	0.14	4.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2164	5C/D	7.027	11.00	1.57	0.00	0.00	75.00	10.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2165	5C/D	6.956	1.00	0.14	0.00	0.00	35.00	5.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2005	2167	5E	7.027	70.00	9.96	47.00	6.69	0.00	0.00	0.00	0.00	34.00	4.84	0.00	0.00	0.00	0.00	0.00	0.00
2005	2168	5E	7.027	4.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00
2005	2171	5C/D	7.027	15.00	2.14	28.00	3.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2039	3C/D, 5A	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00
2006	2041	3C/D, 5A	5.963	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2042	3C/D, 5A	6.023	0.00	0.00	4.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2044	3C/D, 5A	5.963	0.00	0.00	8.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2046	3C/D, 5A	6.023	0.00	0.00	3.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2047	3C/D, 5A	6.023	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2049	3C/D, 5A	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.17	0.00	0.00	0.00	0.00
2006	2050	3C/D, 5A	6.023	50.00	8.30	26.00	4.32	0.00	0.00	0.00	0.00	8.00	1.33	0.00	0.00	0.00	0.00	2.00	0.33
2006	2051	3C/D, 5A	6.023	0.00	0.00	13.00	2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2053	3C/D, 5A	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2054	3C/D, 5A	6.083	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00
2006	2056	3C/D, 5A	6.023	2.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2059	5B	5.963	2.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.17	0.00	0.00	0.00	0.00
2006	2060	5B	6.023	11.00	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2062	5B	6.023	9.00	1.50	0.00	0.00	2.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2064	5B	6.023	8.00	1.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2066	5B	6.023	17.00	2.82	0.00	0.00	4.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2069	5B	6.023	0.00	0.00	4.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2071	5B	6.023	7.00	1.16	67.00	11.13	0.00	0.00	0.00	0.00	4.00	0.66	0.00	0.00	0.00	0.00	1.00	0.17
2006	2073	5B	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2074	5B	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2075	5B	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2077	5B	6.023	5.00	0.83	0.00	0.00	5.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
2006	2079	5B	6.022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2081	5B	6.083	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.16	0.00	0.00	1.00	0.16
2006	2082	5B	6.083	15.00	2.47	0.00	0.00	1.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2083	5B	6.083	43.00	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2084	5B	6.023	0.00	0.00	2.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2085	5B	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2090	5B	5.842	13.00	2.23	54.00	9.24	0.00	0.00	0.00	0.00	2.00	0.34	3.00	0.51	0.00	0.00	0.00	0.00
2006	2092	5B	5.963	2.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2093	5B	5.963	10.00	1.68	87.00	14.59	0.00	0.00	0.00	0.00	10.00	1.68	0.00	0.00	0.00	0.00	0.00	0.00
2006	2095	5B	5.842	0.00	0.00	67.00	11.47	0.00	0.00	0.00	0.00	3.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00
2006	2096	5B	5.902	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2098	5B	5.963	3.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2101	5C/D	5.902	2.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2102	5B	5.902	49.00	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2104	5B	5.902	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
2006	2106	5B	5.902	41.00	6.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2107	5B	6.023	1.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2109	5C/D	5.902	50.00	8.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.17	0.00	0.00	0.00	0.00
2006	2110	5C/D	5.963	9.00	1.51	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
2006	2111	5C/D	5.902	10.00	1.69	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00
2006	2113	5C/D	5.963	7.00	1.17	4.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2122	5C/D	6.023	5.00	0.83	0.00	0.00	5.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2124	5C/D	5.963	1.00	0.17	62.00	10.40	0.00	0.00	0.00	0.00	1.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00
2006	2125	5C/D	5.963	18.00	3.02	0.00	0.00	2.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2131	5C/D	5.963	0.00	0.00	1.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.34
2006	2133	5C/D	5.963	0.00	0.00	9.00	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2135	5C/D	6.023	33.00	5.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2136	5C/D	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2137	5C/D	6.023	24.00	3.99	5.00	0.83	0.00	0.00	1.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2138	5C/D	6.023	18.00	2.99	2.00	0.33	0.00	0.00	0.00	0.00	1.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00
2006	2139	5C/D	5.963	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2142	5C/D	5.963	18.00	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2143	5E	5.963	0.00	0.00	7.00	1.17	0.00	0.00	0.00	0.00	47.00	7.88	5.00	0.84	0.00	0.00	17.00	2.85
2006	2145	5C/D	5.962	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2146	5E	5.963	16.00	2.68	0.00	0.00	97.00	16.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2147	5C/D	5.902	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2148	5C/D	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2149	5E	6.023	0.00	0.00	25.00	4.15	0.00	0.00	0.00	0.00	4.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00
2006	2150	5C/D	5.963	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2151	5E	5.963	0.00	0.00	16.00	2.68	0.00	0.00	7.00	1.17	2.00	0.34	6.00	1.01	0.00	0.00	0.00	0.00
2006	2153	5C/D	5.842	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2154	5C/D	5.842	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2155	5C/D	5.963	0.00	0.00	8.00	1.34	0.00	0.00	4.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2156	5E	6.023	0.00	0.00	6.00	1.00	0.00	0.00	14.00	2.33	0.00	0.00	10.00	1.66	0.00	0.00	0.00	0.00
2006	2157	5E	5.963	0.00	0.00	0.00	0.00	16.00	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2159	5C/D	6.023	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2160	5C/D	5.963	11.00	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2162	5C/D	5.963	5.00	0.84	0.00	0.00	8.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2164	5C/D	5.962	9.00	1.51	0.00	0.00	23.00	3.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2165	5C/D	5.902	0.00	0.00	0.00	0.00	17.00	2.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2006	2167	5E	5.962	72.00	12.08	21.00	3.52	0.00	0.00	0.00	0.00	10.00	1.68	0.00	0.00	0.00	0.00	0.00	0.00
2006	2168	5E	5.962	3.00	0.50	1.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2002	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	6.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2005	3C/D, 5A	4.968	0.00	0.00	15.00	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20
2007	2006	3C/D, 5A	5.019	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2007	3C/D, 5A	4.968	0.00	0.00	1.00	0.20	0.00	0.00	13.00	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2008	3C/D, 5A	5.019	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2012	3C/D, 5A	4.968	0.00	0.00	3.00	0.60	0.00	0.00	4.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2013	3C/D, 5A	5.019	0.00	0.00	3.00	0.60	0.00	0.00	3.00	0.60	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00
2007	2015	3C/D, 5A	5.019	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2016	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2018	3C/D, 5A	4.968	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2020	3C/D, 5A	5.019	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2024	3C/D, 5A	5.019	0.00	0.00	30.00	5.98	0.00	0.00	3.00	0.60	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00
2007	2026	3C/D, 5A	4.968	4.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2027	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2031	3C/D, 5A	5.019	10.00	1.99	2.00	0.40	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2033	3C/D, 5A	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00
2007	2035	3C/D, 5A	5.019	11.00	2.19	20.00	3.98	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
2007	2037	3C/D, 5A	4.968	31.00	6.24	13.00	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20
2007	2038	3C/D, 5A	5.019	0.00	0.00	12.00	2.39	0.00	0.00	7.00	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2039	3C/D, 5A	5.019	1.00	0.20	1.00	0.20	0.00	0.00	0.00	0.00	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00
2007	2040	3C/D, 5A	5.019	0.00	0.00	1.00	0.20	0.00	0.00	7.00	1.39	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
2007	2042	3C/D, 5A	5.019	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00
2007	2044	3C/D, 5A	5.019	0.00	0.00	13.00	2.59	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2045	3C/D, 5A	4.968	0.00	0.00	36.00	7.25	0.00	0.00	0.00	0.00	10.00	2.01	0.00	0.00	0.00	0.00	1.00	0.20
2007	2049	3C/D, 5A	5.019	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2050	3C/D, 5A	5.019	17.00	3.39	12.00	2.39	0.00	0.00	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00
2007	2051	3C/D, 5A	5.019	0.00	0.00	18.00	3.59	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2052	3C/D, 5A	5.019	6.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2055	3C/D, 5A	5.019	4.00	0.80	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2057	5B	5.019	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20
2007	2060	5B	4.968	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2061	5B	5.069	11.00	2.17	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2062	5B	5.019	3.00	0.60	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2063	5B	5.019	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2064	5B	5.019	7.00	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2065	5B	4.968	0.00	0.00	27.00	5.43	0.00	0.00	4.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2066	5B	5.019	3.00	0.60	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2069	5B	5.019	0.00	0.00	6.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2070	5B	4.968	0.00	0.00	40.00	8.05	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20
2007	2071	5B	5.019	3.00	0.60	58.00	11.56	0.00	0.00	0.00	0.00	2.00	0.40	1.00	0.20	0.00	0.00	0.00	0.00
2007	2072	5B	5.019	9.00	1.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2073	5B	5.019	2.00	0.40	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00
2007	2077	5B	4.968	6.00	1.21	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2078	5B	5.019	11.00	2.19	4.00	0.80	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2079	5B	4.968	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20
2007	2080	5B	4.968	0.00	0.00	9.00	1.81	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2081	5B	5.019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	1.00	0.20
2007	2082	5B	5.019	14.00	2.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2083	5B	5.019	10.00	1.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2084	5B	5.019	0.00	0.00	6.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2086	5C/D	4.869	24.00	4.93	5.00	1.03	0.00	0.00	0.00	0.00	1.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00
2007	2087	5B	4.918	0.00	0.00	0.00	0.00	3.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2088	5B	4.868	9.00	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2089	5B	4.968	14.00	2.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2090	5B	4.968	1.00	0.20	8.00	1.61	0.00	0.00	0.00	0.00	5.00	1.01	0.00	0.00	0.00	0.00	0.00	0.00
2007	2091	5B	4.868	7.00	1.44	22.00	4.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.21
2007	2092	5B	4.868	1.00	0.21	0.00	0.00	4.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2093	5B	4.918	6.00	1.22	53.00	10.78	0.00	0.00	0.00	0.00	3.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00
2007	2094	5B	4.968	28.00	5.64	7.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2095	5B	4.868	0.00	0.00	19.00	3.90	0.00	0.00	0.00	0.00	2.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00
2007	2098	5B	5.019	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2099	5B	4.968	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2100	5B	4.968	35.00	7.05	52.00	10.47	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.40	0.00	0.00	2.00	0.40
2007	2101	5B	4.968	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2102	5C/D	4.968	7.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2103	5C/D	4.968	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2105	5C/D	4.868	0.00	0.00	0.00	0.00	1.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2106	5B	4.918	7.00	1.42	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
2007	2107	5B	4.968	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2108	5C/D	4.968	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2109	5C/D	4.968	15.00	3.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2110	5C/D	4.918	88.00	17.89	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
2007	2111	5C/D	4.918	20.00	4.07	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
2007	2112	5C/D	5.019	3.00	0.60	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2113	5C/D	5.019	0.00	0.00	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2115	5C/D	4.968	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2116	5C/D	5.019	4.00	0.80	4.00	0.80	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	1.00	0.20
2007	2117	5C/D	5.019	19.00	3.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2118	5C/D	4.968	8.00	1.61	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
2007	2119	5C/D	4.868	0.00	0.00	18.00	3.70	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.82	0.00	0.00	0.00	0.00
2007	2120	5C/D	4.968	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
2007	2121	5C/D	4.968	7.00	1.41	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2122	5C/D	4.968	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2123	5C/D	4.968	46.00	9.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2124	5C/D	4.868	0.00	0.00	19.00	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2125	5C/D	4.968	8.00	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2126	5C/D	4.968	9.00	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2127	5C/D	4.868	29.00	5.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2128	5C/D	4.918	8.00	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2129	5C/D	4.968	0.00	0.00	13.00	2.62	0.00	0.00	8.00	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2130	5C/D	4.968	0.00	0.00	5.00	1.01	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2135	5C/D	4.968	43.00	8.66	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2136	5C/D	4.918	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20
2007	2137	5C/D	4.968	21.00	4.23	7.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix C continued.

Year	Station	PMFC Area Groupings	Effective skates	RB Count	RB CPUE	YE Count	YE CPUE	RE Count	RE CPUE	QB Count	QB CPUE	SG Count	SG CPUE	CN Count	CN CPUE	CP Count	CP CPUE	BC Count	BC CPUE
2007	2138	5C/D	4.968	8.00	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2140	5C/D	5.019	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2141	5C/D	5.019	0.00	0.00	36.00	7.17	0.00	0.00	15.00	2.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2142	5C/D	4.968	2.00	0.40	1.00	0.20	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2143	5E	5.019	0.00	0.00	7.00	1.39	0.00	0.00	0.00	0.00	8.00	1.59	3.00	0.60	0.00	0.00	0.00	0.00
2007	2144	5E	5.019	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	7.00	1.39	0.00	0.00	0.00	0.00	0.00	0.00
2007	2146	5E	4.968	6.00	1.21	0.00	0.00	27.00	5.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.40
2007	2149	5E	4.968	0.00	0.00	19.00	3.82	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	1.00	0.20
2007	2151	5E	5.019	0.00	0.00	13.00	2.59	0.00	0.00	8.00	1.59	2.00	0.40	1.00	0.20	0.00	0.00	0.00	0.00
2007	2152	5C/D	4.968	0.00	0.00	0.00	0.00	0.00	0.00	7.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2156	5E	4.968	0.00	0.00	8.00	1.61	0.00	0.00	19.00	3.82	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00
2007	2157	5E	4.968	0.00	0.00	0.00	0.00	29.00	5.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2158	5C/D	4.968	0.00	0.00	1.00	0.20	0.00	0.00	7.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2160	5C/D	5.019	12.00	2.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2161	5C/D	5.019	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
2007	2162	5C/D	5.019	1.00	0.20	0.00	0.00	5.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2163	5C/D	4.968	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00
2007	2164	5C/D	4.968	4.00	0.81	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2165	5C/D	4.968	0.00	0.00	0.00	0.00	22.00	4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2166	5E	4.968	0.00	0.00	0.00	0.00	13.00	2.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2167	5E	4.968	43.00	8.66	23.00	4.63	0.00	0.00	0.00	0.00	7.00	1.41	0.00	0.00	0.00	0.00	1.00	0.20
2007	2168	5E	4.968	3.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2169	5C/D	4.968	0.00	0.00	1.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2007	2171	5C/D	4.968	4.00	0.81	3.00	0.60	0.00	0.00	0.00	0.00	1.00	0.20	1.00	0.20	0.00	0.00	0.00	0.00